
QMS[®] 2425/ 2425 TURBO Print System Operation

1800433-001D



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1

Introduction

In This Chapter . . .

- “Introduction” on page 1-2
- “Typographic Conventions” on page 1-4

Introduction

This manual provides information on installing consumables such as media and toner cartridges. You'll also find information on advanced printing features, printer care, print quality, and troubleshooting. Use this guide in conjunction with your other QMS 2425/2425 *TURBO* Print System documentation.

This chapter gives you a brief overview of this manual.

About This Manual

- » **Note:** *Some of the procedures throughout this documentation refer to applications, utilities, and printer drivers being located on disks, but recently QMS has begun placing these on CD-ROM.*

If you need alternate media, please contact your QMS vendor for media availability and purchase information. You can also download some of these files via ftp from our World Wide Web Server at <http://www.qms.com>, our Bulletin Board at (334) 633-3632, or CompuServe at go qmsprint. See the "QMS Customer Support" section of your QMS printer documentation, for sales and support locations and telephone numbers.

The information in this manual is divided into the following sections:

1	Introduction	Provides an overview of this guide.
2	Consumables	Describes the media that's best suited for your printer; how to load paper, labels, transparencies, envelopes; and how to replace the toner cartridge.
3	Advanced Printing Features	Explains how to print duplex, chain cassettes, collate output, print a status page, cancel a print job, and end a print job.

4	Printer Care	Describes how to handle and clean the printer.
5	Print Quality	Gives information on how to improve print quality through adjustments of print density and printer resolution.
6	Troubleshooting Printer Problems	Provides media jam prevention tips, explains how to locate and clear media jams, lists printer status messages, outlines printer and print quality problems and solutions, and describes how to place a service call.
7	Printer Web Page	Contains information on how to access the most frequently accessed printer configurations and gives you instant access to printer status by use of the World Wide Web (WWW).
A	QMS Customer Support	Provides product sales and support telephone numbers and describes how to communicate with QMS through the QMS Bulletin Board, CompuServe, the Internet, and Q-FAX.

Typographic Conventions

The following typographic conventions are used in this manual:

Mixed-Case Courier	Text you type, and messages and information displayed on the screen
<i>Mixed-Case Italic Courier</i>	Variable text you type; replace the italicized word(s) with information specific to your printer or computer
UPPERCASE COURIER	Information displayed in the printer message window
lowercase bold	PostScript operators and DOS commands
<i>lowercase italic</i>	Variable information in text.
UPPERCASE	File and utility names
↵	Press the Enter key (PC) or Return key (Macintosh)
^	Press and hold down the Ctrl key (PC)

» **Note:** *Notes contain tips, extra information, or important information that deserves emphasis or reiteration.*

▲ **Caution:** *Cautions present information that you need to know to avoid equipment damage, process failure, or extreme annoyance.*

💣 **WARNING!** *Warnings indicate the possibility of personal injury if a specific procedure is not performed exactly as described in the manual.*

ACHTUNG! *Bitte halten Sie sich exakt an die im Handbuch beschriebene Vorgehensweise, da sonst Verletzungsgefahr bestehen könnte.*



2

Consumables

In This Chapter . . .

- “Preventing Media Jams” on page 2-2
 - “Loading the Media Cassette” on page 2-2
 - “Feeding Media” on page 2-11
 - “Selecting Media Delivery” on page 2-12
 - “Loading the Multipurpose Tray” on page 2-15
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 - “Printing Envelopes” on page 2-22
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-

Introduction

This chapter covers basic printer operation, such as preventing media jams; loading media; transparencies, labels and envelopes; replacing toner cartridges; and using various kinds of print media.

Preventing Media Jams

There are several things you can do to reduce the occurrence of media jams:

- Use paper, envelopes, labels, and overhead transparencies that match the printer specifications. See appendix B, “Technical Specifications,” in the *Reference* guide.
 - If you have problems with double feeding, remove the media from the cassette or input bin and fan the edges. The sheets may be sticking together.
- » **Note:** *Do not fan transparencies since this causes static.*
- Print media must be stored away from moisture and humidity. The recommended relative humidity is 5%-90% with no condensation.
 - Many manufacturers place an arrow on the end of the wrapper indicating the side of the media to use for printing. If you cannot determine which side of the media to print on, remove the media from the cassette, rotate the stack a half-turn, turn the stack over, and then place it back in the cassette.

Loading the Media Cassette

The QMS 2425/2425 *TURBO* Print System comes standard with two 500-sheet universal media cassettes. The upper tray holds letter/A4 or legal/B4 media, and the lower tray holds letter/A4, legal/B4, or 11" x 17"/A3 media. The printer automatically pulls media from the

cassette. Loading media in either cassette involves the following basic steps:

- Open the cassette
- Set correct media size for the cassette
- Load media in the cassette
- Close the cassette

These steps are described in detail, later in this procedure.

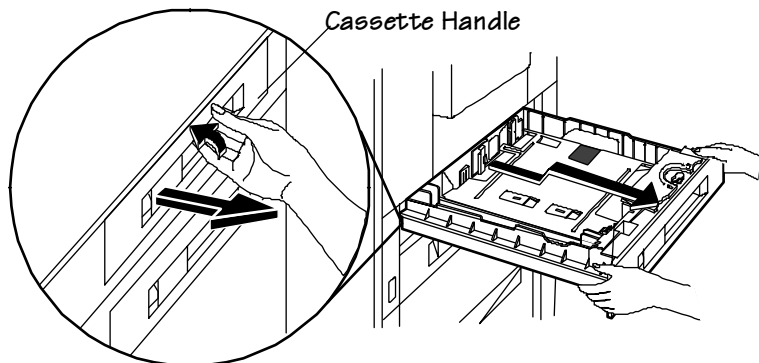
- » **Note:** *Ensure that the media size matches the cassette size (for example, letter/A4 media must be loaded only when the cassette is set to letter/A4 size). Since the media cassette sends a media size signal to the printer controller, using the wrong size media will cause your image to be positioned incorrectly on the page or clipped.*

Load media in either 500-sheet cassette as follows.

Open the Cassette

- » **Note:** *Open and close the cassette like a drawer when loading media. If you remove the cassette it may take several minutes to correctly reposition the cassette on the guide rails.*

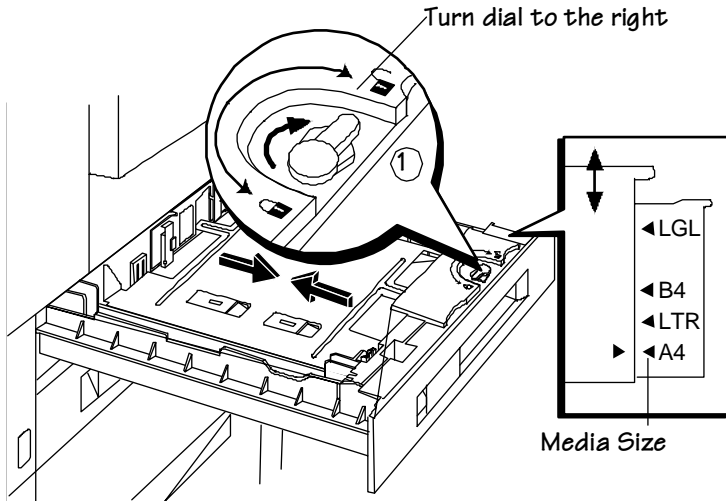
- 1 **Using the cassette handle, inside the pocket of the cassette, pull the cassette away from the printer as far as it will go without removing it from the printer.**



Loading the Media Cassette

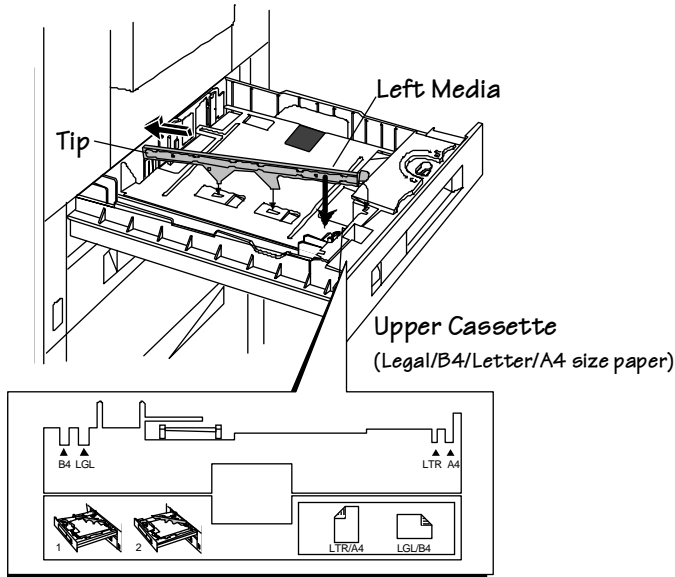
Set the Correct Media Size for the Media Cassette

- 1 Turn the dial to the right to unlock the front media size guide.



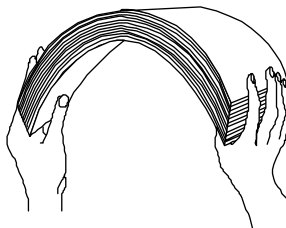
- 2 Slide the media guide to align it with the correct media size marker.
- 3 Turn the dial to the left to lock the front paper size guide.
- 4 Remove the left media size guide, if necessary, by pushing in and lifting it from its paper size slot.

- 5 Align the tip of the guide with the desired paper size marker, then insert the rest into the paper cassette.



Load Media in the Cassette

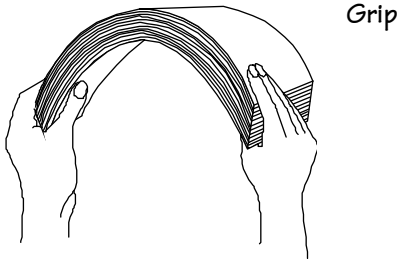
- 1 Unwrap the paper, pull the stack out, and then with one hand at each end of the stack, lift and hold it in a curved position as shown in the following illustration.
- » **Note:** Paper is packed in reams of 500 sheets. Don't unpack the paper above the printer as this might cause particles to fall into the printer components. Note the arrows on the wrapper. They show which side of the paper should be on the top when it is loaded in the cassette.



Hold
Without
Gripping

Loading the Media Cassette

- 2 Grip each end of the stack firmly.

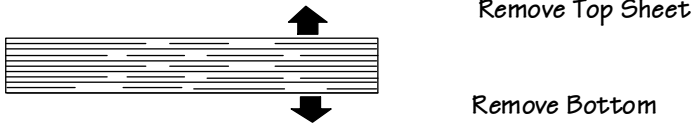


- 3 Straighten the stack, and then roll the fanned sheets from side to side to get air through the sheets and prevent static buildup.



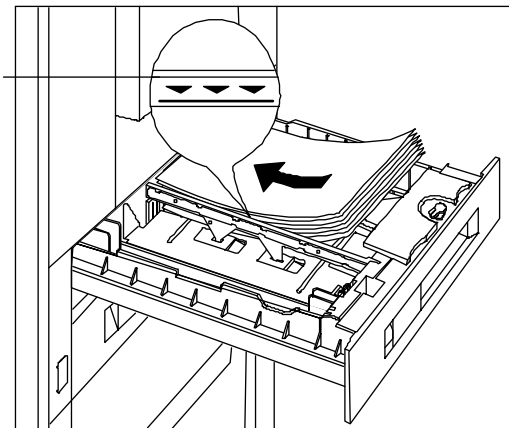
- 4 Take off the top and bottom sheets.

The top and bottom sheets sometimes have residual glue buildup that could cause the printer to jam.

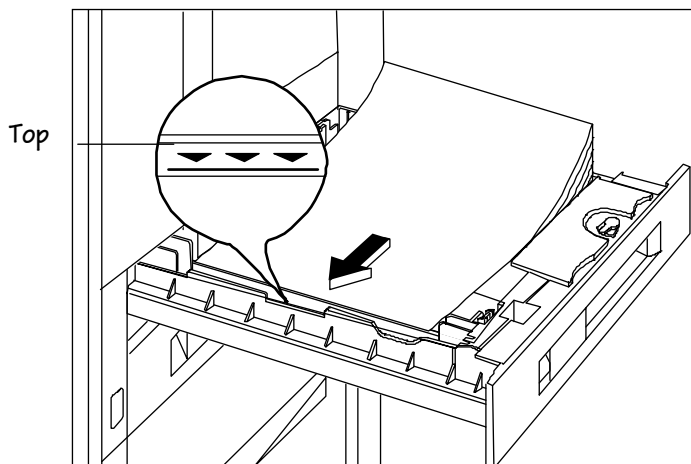


Loading the Media Cassette

- 5 Place a stack of media in the cassette with the print side facing down.

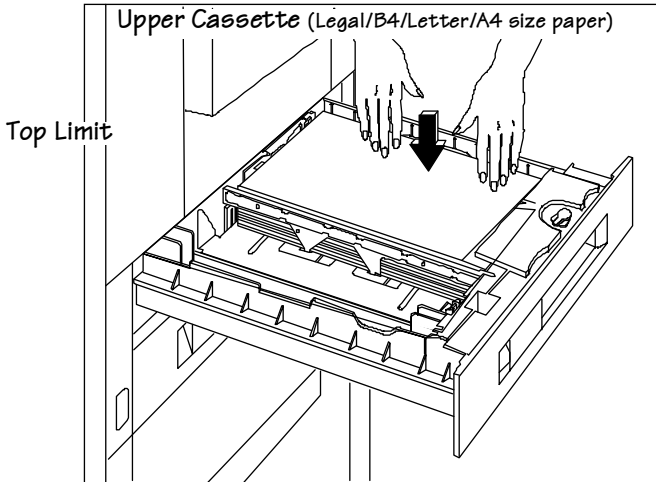


Lower Cassette (Legal/B4/Letter/A4/11x17/A3 size paper)

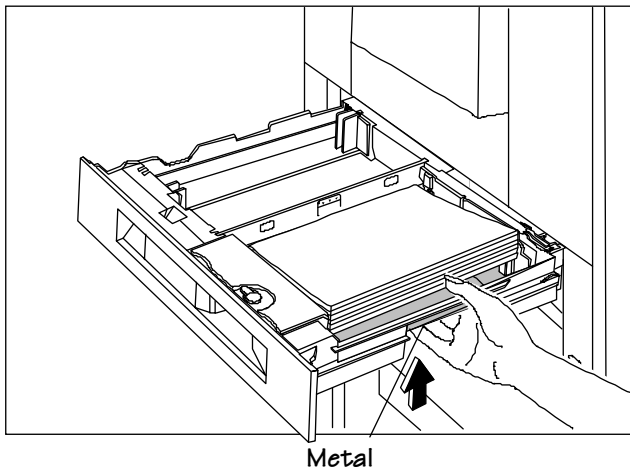


Loading the Media Cassette

- 6 Ensure that the media stack lies flat and does not exceed the top limit mark.



- » **Note:** If you need to remove excess media from a media cassette, simply push up the metal panel to lift the media stack.

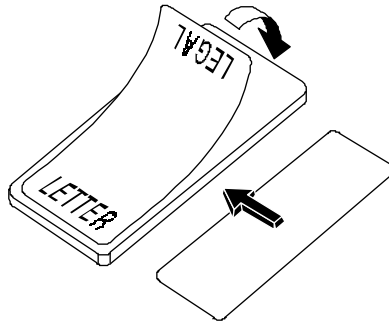


Open the Cassette

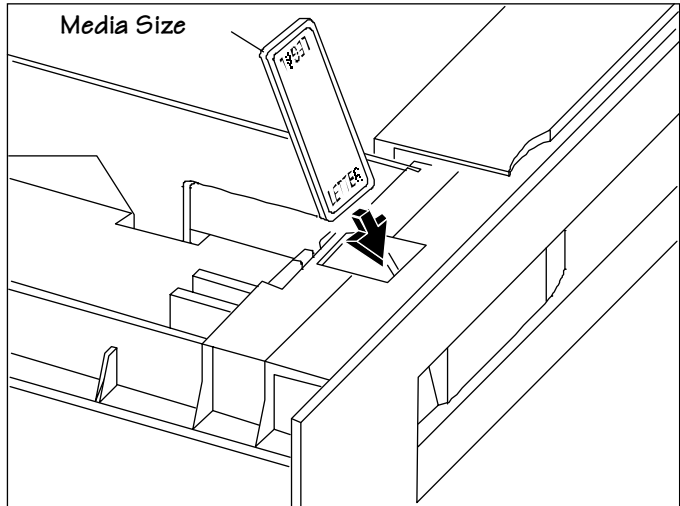
1 Attach the media size card

The media size card identifies the media loaded in a cassette.

- a Remove two of the media size labels and place one on each side of the media size card.



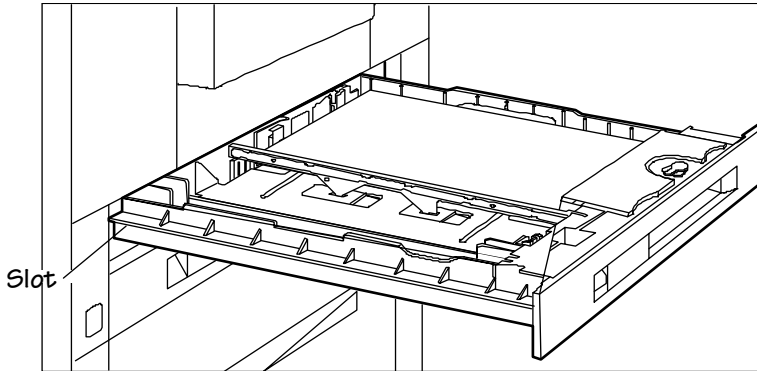
- b After the media is loaded in a media cassette, insert the media size card into the slot.



- c Ensure that the correct media size label is showing.

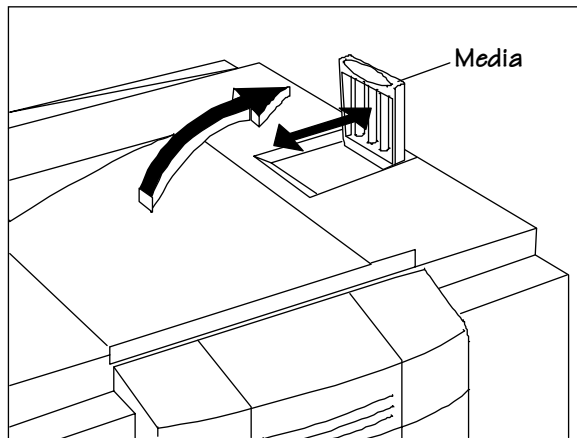
Loading the Media Cassette

- 2 Slide the cassette into the cassette slot until it's firmly seated.



Media Orientation (B4/Legal/11" x 17")

- 3 Flip up the media stop, and slide it to the correct media size.



- » **Note:** When printing different-sized media in the face-down tray, set the media stop to the largest media size. If it is set to a smaller size, large-size media will curl, block the opening (when delivered to the output tray), and cause a media jam.

Feeding Media

There are two ways of feeding media through your printer:

- Cassette feed (automatically)
- Manual feed (from the multipurpose tray)

Cassette Feed

Cassette feed automatically pulls media from one of the cassettes at the front of the printer. The cassettes handle media as light as 17 lbs (64 g/m²) or as heavy as 28 lbs (105 g/m²), and the maximum loading depth is 1.97" (50 mm).

See "Loading the Media Cassette" on page 2-2, for details on how to load the cassette.

Manual Feed

Manual feed is the method of feeding single sheets or small increments of media, such as envelopes, labels, paper, odd-sized media, or transparencies from the multipurpose tray only. Media weight can range from 17 to 34 lbs (64 to 128 g/m²).

- » **Note:** *Use the face-up output bin (described in the following section) when printing heavy-weight stock and envelopes. Using this bin bypasses some internal printer rollers and results in less curl. It is used often with manual feed.*

Manual feed is very useful for

- Odd-sized media (cut sheets)
- Transparencies
- Heavy-weight labels and envelopes

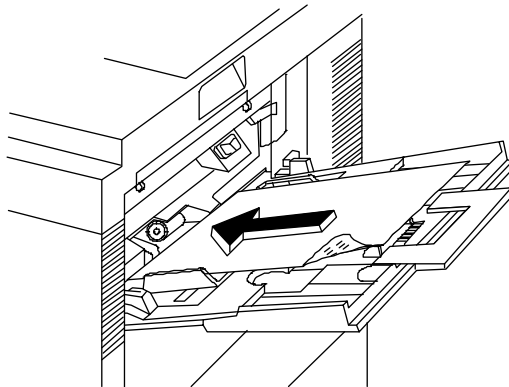
Use the following instructions to manual-feed media:

- 1 Adjust the media guides on the multipurpose tray to match the width of the media you are using.**

Selecting Media Delivery

2 Load media in the multipurpose tray.

The print side should be facing up and placed as shown, depending on the media size. The media is automatically fed into the printer, and the printed media is forwarded to the selected output tray. See chapter 2, "Print Media," of the *Reference* for information on feed edge.



Selecting Media Delivery

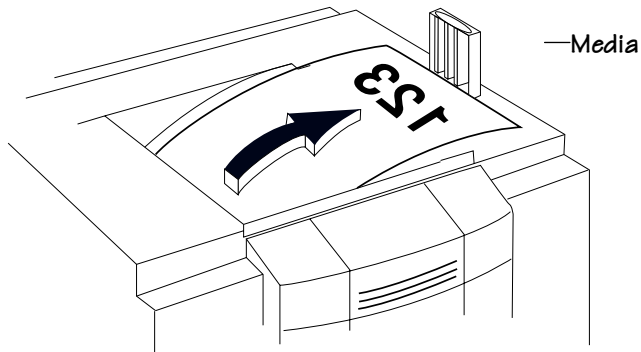
Your media delivery selection controls whether you want your output to stack face-down or face-up. It depends on the type of media, as well as personal preference. For best results, always test print a few pages to ensure that the selected print delivery is suitable for the media.

- » **Note:** *The order of output on the your QMS 2425/2425 TURBO Print System is from first to last page in both the face-up and face down output trays. If your QMS 2425/2425 TURBO Print System is the base model (with 8 MB memory), complex multiple page documents sent via the face-up output tray must be chunk collated to ensure that the order of pages is first to last.*

However, the base model system may have insufficient memory to store the entire document before printing begins, so you could experience unexpected ordering of your output pages. You can purchase the executive model of this printer with 24 MB of memory, the 2425 TURBO EX with 32 MB of memory, or you can add additional memory to the base model system to avoid this type of chunk collation problem. See appendix A, "QMS Customer Support," for sales and support telephone numbers.

Face-down Tray

After being printed, media normally stacks face-down in the recessed area on top of the printer. The face-down tray holds up to 500-sheets of media.



Setting the Media Stop

The media stop keeps the media positioned in the output tray. For face-down delivery, you must set the media size to the correct media size.

Use the following directions to set the media stop:

- 1 Flip up the media stop, and slide it to the correct media size.**
 - » **Note:** When printing different-sized media in the face-down tray, set the media stop to the largest media size. If it is set to a smaller size, large-size media will curl, block the opening (when delivered to the output tray), and cause a media jam.

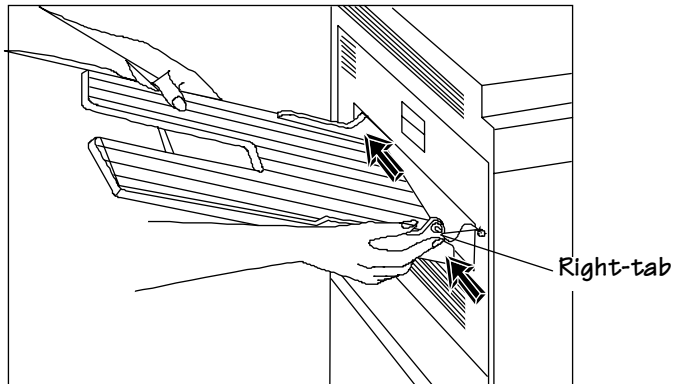
Face-up Tray

For face-up output, you must attach the face-up tray to the left side of the printer and configure the printer to access it. This tray holds up to 100 sheets of media.

Attaching the Face-up Tray

Use the following instructions to attach the face-up tray.

- » **Note:** *When printing transparencies with face-up delivery, remove them from the face-up tray as soon as delivered to prevent excessive curling and jams.*
- 1** Insert the left tab on the face-up tray into the slot on the back of the printer.
- 2** Press lightly on the right side and insert the right tab into the slot.



- 3** Access the Operator Control/Outputbin menu and enable Face Up.

Removing the Face-up Tray

Use the following instructions to remove the face-up tray:

- 1 Remove first the right tab, and then the left tab on the face-Up tray from the slot on the back of the printer.**
- » **Note:** *Remember to disable the Operator Control/Outputbin/Face up setting.*

Other Media Delivery Options

The QMS Stackler Option, which includes three large-capacity output trays, provides face-up, face-down, job offset, and stapling media delivery options. See chapter 8, “Document Finishing Options,” in the *Options* manual for more information.

Loading the Multipurpose Tray

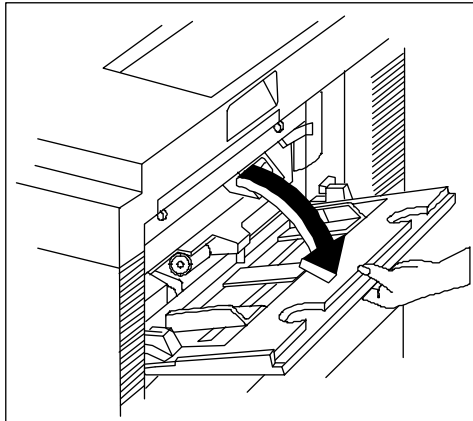
Use the multipurpose tray to print on envelopes, labels, odd-size media, and transparencies. The multipurpose tray is also especially useful if you want to print on a single sheet of letterhead or colored media without changing the media in the media cassettes. Its capacity is approximately 100 sheets of 20 lbs (75 g/m²) cut-sheet media. When the tray is not in use, retract it into the printer.

This section explains how to load print media in the multipurpose tray. For tips on how to get the best possible printing results, see “Envelopes: Special Considerations,” “Labels: Special Considerations,” and “Transparencies: Special Considerations,” at the end of this section.

Loading the Multipurpose Tray

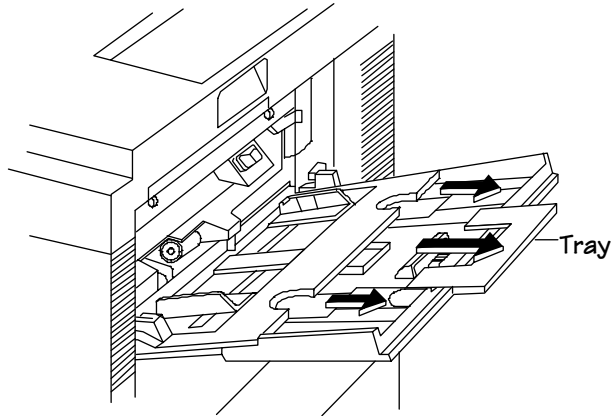
- » **Note:** A MEDIA SIZE MISMATCH error can be caused if the media in the multipurpose tray is not the media size selected for the multipurpose tray (inputbin 1). If the printer supports the media size you want, insert the correct size media in the multipurpose tray. If the printer does not support the media size you want, set Operator Control/Multipurpose Sz to universal to clear the error. See "Media Size" in chapter 4, "Printer Configuration," of the Reference for more information on multipurpose size.

- 1 Reach into the pocket of the multipurpose tray and pull it open.

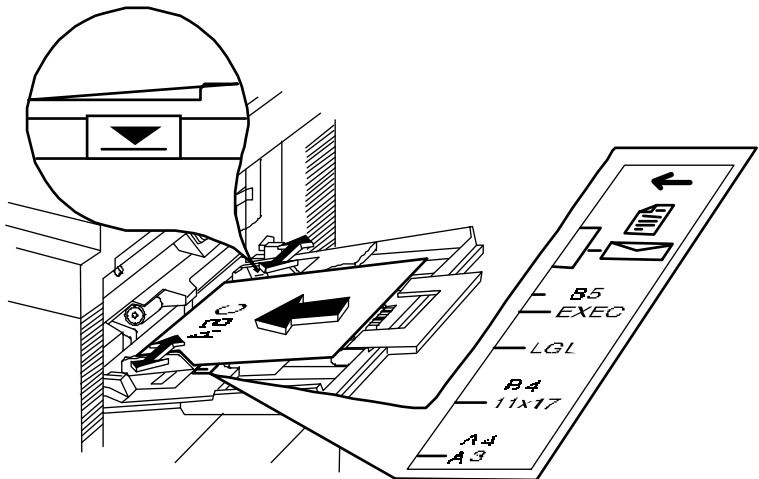


Loading the Multipurpose Tray

- 2 Pull out the large tray extension from the two grips.



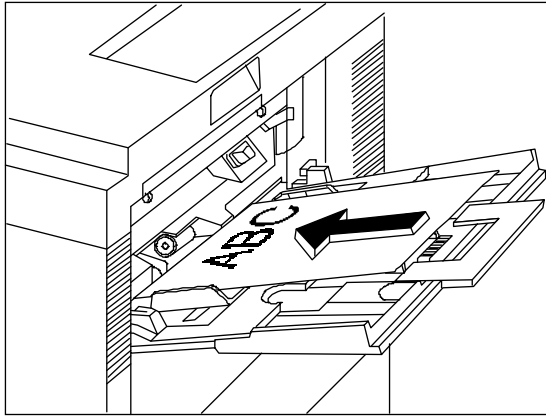
- 3 Pull out the small tray extension from the center grip.
- 4 Adjust the media guides to the size of the media.



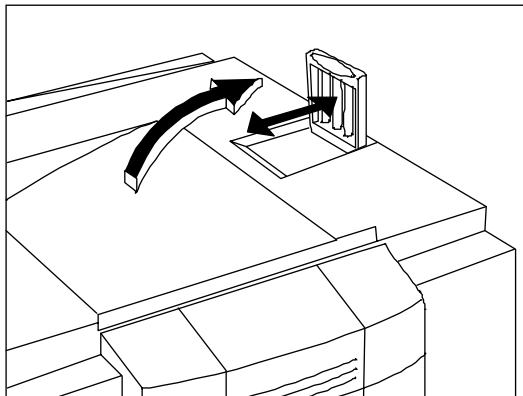
Loading the Multipurpose Tray

- 5 **Align the media, and insert it between the media guides as far as possible into the printer, with print-side up and the top of the media going into the printer first.**

See chapter 2, "Print Media," of the *Reference* for the print media chart that indicates appropriate feed edge for each paper-size.



- 6 **Make sure that the media does not exceed the limit mark on the media guide.**
- 7 **Check the media guides to make sure they touch the sides of the print media.**
- 8 **Adjust the media stop to the correct size.**



Envelopes: Special Considerations

- Use landscape orientation to create the envelope text in your application short-edge first.
- Before printing envelopes
 - Disable the duplexer if it is installed.
 - Remember that you can only print on the address side of the envelope.
 - Make sure that the media guides are set to the height of the envelope (media jams or misfeeds may occur if they are too loose or too tight).
- We recommend that you use Canon USA office envelopes with diagonal joints and ordinary gummed flaps.
- Use envelopes with the flap toward the rear of the printer when loaded.
- Keep the following conditions in mind when choosing an envelope:
 - It must not contain any fasteners, clasps, windows, or peel-off strips; otherwise, the printer may be seriously damaged.
 - The envelope material must not melt, vaporize, offset, discolor, or emit dangerous fumes at high temperatures (190° C/ 374° F).
 - The edges must be square and it must not be wrinkled, torn, or curled.

Labels: Special Considerations

Labels are printed from the multipurpose tray. The procedure for feeding labels is almost the same as for regular media; however, you must use the face-up output bin. Keep in mind the following considerations:

- Use Avery Label Stock 5160 or Canon USA labels. Adhesive label stock should have pressure-sensitive (peel-and-stick) adhesive backing and should be 17-34 lbs (64 -128 g/m²).
- Use only label sizes letter or A4.

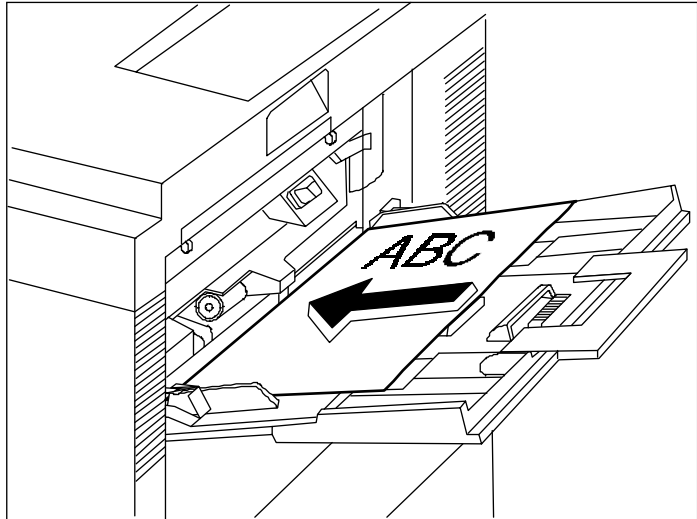
Loading the Multipurpose Tray

- The surface (print face) of the labels must be made of normal paper with a matte-finish, similar to copy paper.
- The label backing must be able to withstand the heat generated by the fixing assembly (190° C/374° F).
- Ensure that the label backing is not made of easily removable coated paper.
- Avoid using labels with exposed adhesive; it may stick to the toner cartridge or the fixing roller, causing labels to peel off and printer jams to occur.
- Label data should be formatted within your application. Try printing your data on a plain sheet of media first to check placement. This reduces the number of label sheets you use.
- Before printing labels, disable the duplexer if it is installed and check the manual feed guides to make sure they're not too tight and buckling the labels. Also, make sure label size and type meet specifications listed in appendix B, "Technical Specifications," of your *Reference* guide. If labels curl excessively, use the face-up output bin at the rear of the printer.
- Load the labels lengthwise (long edge first), face up, and with the top of the page toward the rear of the printer.

Letterhead and Memo Media: Special Considerations

Letterhead and memo media are printed from the multipurpose tray. Keep in mind the following:

- Load the media lengthwise (long edge first), face up, and with the top of the page toward the rear of the printer.



Odd-size Media: Special Considerations

Odd-size media is printed from the multipurpose tray. Keep in mind the following considerations:

- Use only 17-28 lbs (64-105 g/m²) odd-size paper recommended for laser printers.
- Do not use perforated paper (including 3-hole-punched paper).

Transparencies: Special Considerations

Transparencies are printed from the multipurpose tray, using the face-up output tray at the back of the printer.

- We recommend using Canon USA or 3M type PP2500 transparencies.
- Use only transparency sizes letter or A4.
- Transparencies must be able to withstand the heat generated by the fixing assembly (190° C/374° F), without melting.
- Tap the stack of transparencies on a flat surface to align the edges, before loading them. Remember, don't fan the stack.
- When handling transparencies, hold them by their edges and avoid touching the print side.
- Load transparencies printing side up. The correct print side is usually marked on the transparency package. About 20 sheets can be loaded at one time.
- When printing transparencies with face-up delivery, remove them from the face-up tray as soon as delivered to prevent excessive curling and jams.
- Remember to keep the media path clean. Transparencies are especially sensitive to a dirty media path. If there are shadows either on the top or the bottom of the sheets, see chapter 4, "Printer Care," for instructions on how to clean the media path.

Printing Envelopes

The QMS 2425/2425 *TURBO* Print System supports envelope printing in two ways:

- From the multipurpose tray on any size media from 6.92" x 10.23"—176 mm x 260 mm by manually inserting up to 10 envelope in the tray.

- From the optional envelope cassette on up to 100 envelopes in the following sizes: envelope 9.76" x 6.93", COM 10 (9.5" x 4.125"), Monarch (7.5" x 3.875"), DL size (8.66" x 4.33") 229 mm x 162 mm, and C5 size (9.02" x 6.38") 229 mm x 162 mm.

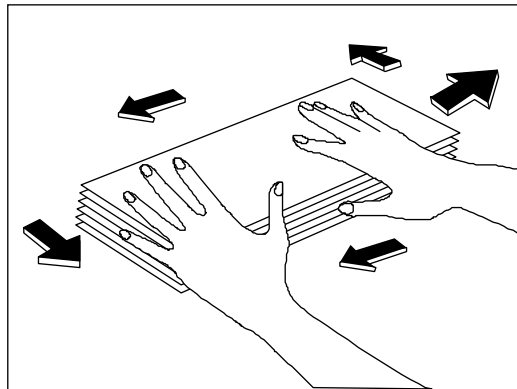
Formatting Data for Envelopes

Your printer receives the necessary instructions to print on envelopes from your application. Read the printing section of your application manual to find out how it supports envelope printing. The printer should be in landscape mode for most applications. Usually, this is accomplished through the application.

When formatting data for envelopes, leave a 0.6" (15 mm) margin from the edges of the envelope. Print on only one side. Remember, some parts of an envelope consist of three layers of media: the front, back, and flap. Print in these layered regions may be faded.

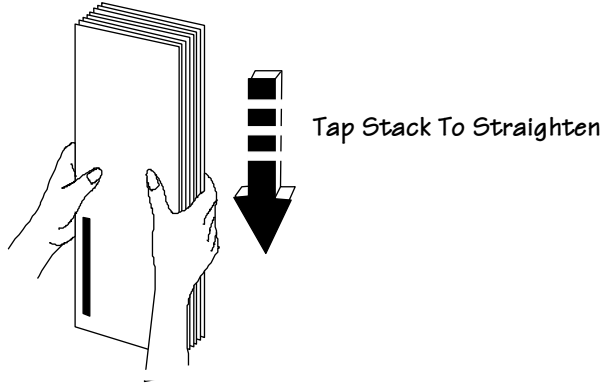
Loading Envelopes via the Multipurpose Tray

- 1 Place the envelopes on a flat surface and flatten them by pressing down the corners in the direction shown.

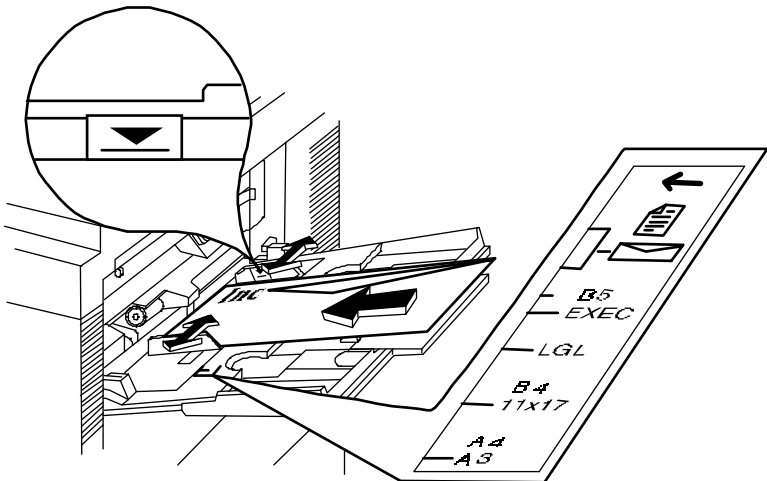


Printing Envelopes

- 2 Flex the envelope stack (including the edges) to remove any stiffness. Correct any dog-eared corners, then tap the envelopes on a flat surface to align.



- 3 Open the multipurpose tray.
- 4 Adjust the media guides to the height of the envelopes.



- 5 **Slide the envelope stack into the printer as far as it will go, with the print side facing up and the flap should be on your right.**

Because envelopes pass through heated rollers, the gummed area on the flap may seal. Open the flap immediately after it passes through the printer, before the seal cools. You may then reseal it in the usual manner. The use of envelopes with emulsion-based glue avoids this problem.

Loading Envelopes via the Envelope Feeder

To load up to 100 envelopes at a time, use the optional envelope feeder. Instructions for installing and using it are in chapter 6, “Media Input,” in the *Options* guide. See your QMS vendor for more information on the optional envelope feeder.

Using Toner Cartridges

Characters and images are created in your laser printer through a process that applies toner (made of carbon particles) to the page in the printer's fusing unit. When an image is formed, a positive electrical charge is applied to transfer the image to the page. The toner cartridge contains the toner and the photosensitive drum needed to operate the laser printer. The photosensitive drum has characteristics similar to those of photographic film.

Toner Cartridge Life

The toner cartridge contains enough toner to print about 15,000 letter/A4-size pages at normal (4%) page coverage. If the printer is run entirely in Conserve Toner mode (Administrator/Engine/Conserve Toner menu), a toner cartridge lasts for over 52,500 letter/A4-size pages at normal (4%) page coverage.

When the cartridge toner supply runs low, the printer message `TONER LOW` displays. Usually, parts of the page print lighter. It is your option whether or not to continue printing when the engine senses it is low of toner.

Using Toner Cartridges

When toner is low, it is sometimes helpful to take the cartridge out of the printer and redistribute the toner. This is done by gently rocking the cartridge side to side. Then reinstall the cartridge. If the `TONER LOW` message remains in the display panel after redistributing toner, the cartridge must be replaced.

Additional toner cartridges may be purchased from your QMS vendor. Toner specifications are in appendix B, "Technical Specifications," of your *Reference* manual.

Toner Cartridge Handling

The cartridge contains the toner and laser-sensitive drum needed to operate the laser printer.

- The cartridge has a wide opening for the laser beam guided via the reflecting mirror. Be careful not to drop any foreign objects, such as clips or pins, when handling and installing the cartridge.
- The drum is extremely sensitive to light and may deteriorate if exposed to bright light; do not open or touch the drum protective shutter.

Toner Cartridge Storage

The toner cartridge

- Should be kept in its protective bag until you're ready to install it.
- Is sensitive to bright light. Do not store it in direct sunlight or room light (more than 1500 lux). Store it horizontally in a cool, dry location away from sunlight. The maximum storage temperature is 95° F (35° C) and the maximum storage humidity is 80% without condensation.
- Should be kept level during storage. Do not stand or store the cartridge on its end or turn upside down; the toner inside the cartridge may become caked or unequally distributed.
- Should be kept away from salty air environments, corrosive gases such as aerosols, and extreme heat or humidity.

- Should be kept away from monitors, disk drives, and floppy disks. The magnets in the cartridge can damage stored data.

Refilled Toner Cartridges

QMS does not recommend using refilled toner cartridges on this printer. Refilled toner cartridges may produce variations in toner quality and reliability and may reduce the print quality of your documents. In addition, toner leaks affect your warranty.

Extending Toner Cartridge Life

Redistributing Toner

When the toner supply is low, `TONER LOW` displays in the printer's message window, and parts of the page usually start printing lighter than normal.

Sometimes, you can increase the life of the toner cartridge by taking it out of the printer and redistributing the toner—hold the cartridge with both hands and then gently rock it from side-to-side (as you do for a new cartridge) five or six times. If the `TONER LOW` message remains in the message window, you must replace the toner cartridge, as described later in this chapter.

Conserving Toner

To help you lower your printing costs, your printer provides an option called Conserve Toner, which simulates draft-quality printing. The printer reduces the amount of toner used during printing by screening the black dots in a 1:3.5 ratio. In other words, 1 black dot prints for every 3.5 black dots that would print in normal printing mode. Increasing the Toner Density may darken your draft-quality printing.

The Conserve Toner option can be enabled through your printer driver or through the Administration/Engine/Print Quality menu.

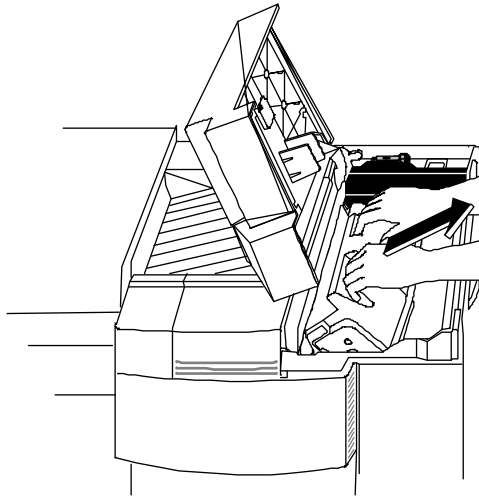
- » **Note:** *The Conserve Toner option is designed for draft printing only. Turn off Conserve Toner when printing proof or final copies of documents to avoid any possible distortion of patterns, halftone, and images.*

Replacing a Toner Cartridge

You may purchase additional cartridges from your QMS vendor. See the "Print Engine Specifications" section of appendix B, "Technical Specifications," in the *Reference* for more information on toner cartridges.

Removing the Empty Toner Cartridge

- 1 Open the top cover.
- 2 Remove the empty toner cartridge. Grasping the grip area of the empty toner cartridge with both hands, remove the cartridge by pulling it toward you.



Put the old toner cartridge in a trash receptacle. Do not dispose of it by burning.

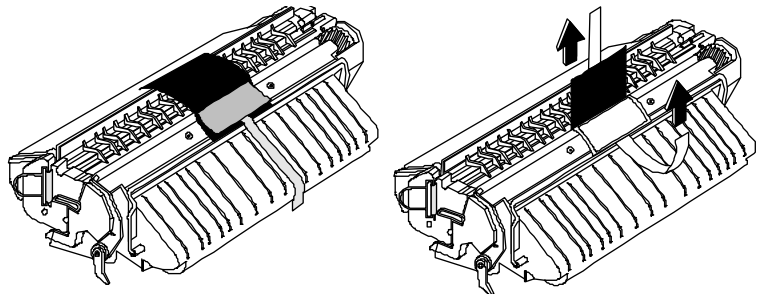
-
- s **Caution:** *Remember that each time you replace the toner cartridge, you should remove any residual toner powder from inside the printer. (See the "Cleaning the Printer," section of chapter 4 of this manual.)*
-

Installing a Toner Cartridge

In your laser printer, characters and images are created through a process that applies toner (made of carbon particles) to the page in the printer's fusing unit. When an image is formed, heat and pressure are applied to transfer the image to the page. The toner cartridge contains the toner and photosensitive drum needed to operate the laser printer.

You may purchase additional toner cartridges from your QMS vendor. See appendix B, "Technical Specifications," of the *Reference* manual for specifications.

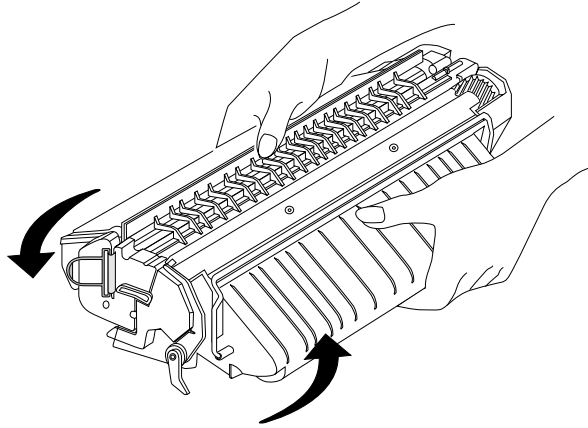
- 1 Open the top cover, if it's not already opened.**
- 2 Lift the toner cartridge out of its shipping carton, open the protective bag, and remove the cartridge.**
 - » **Note:** *After taking the toner cartridge from its protective bag, do not open the cover or touch the photo-sensitive drum of the toner cartridge because it may deteriorate the drum and reduce print quality.*
- 3 Remove the black protective sheet, and discard it.**



Replacing a Toner Cartridge

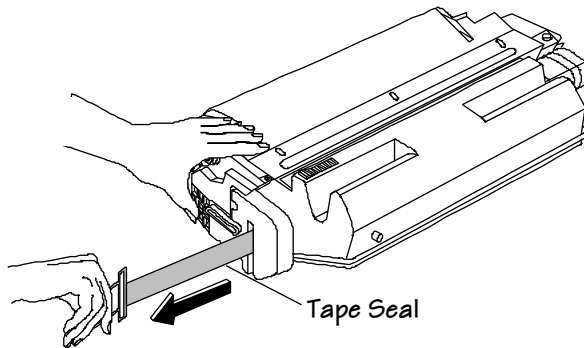
4 Distribute the toner in the cartridge.

Hold the cartridge with both hands, and gently rock it from side-to-side five or six times to distribute the toner.



5 Remove the tape seal.

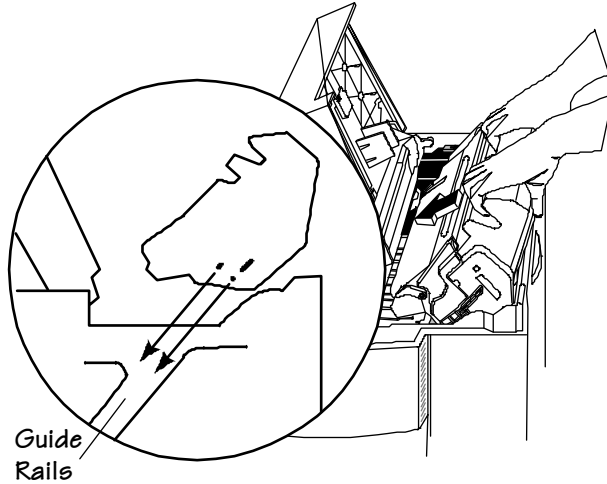
Holding the cartridge in place with one hand, use your other hand to grasp the orange tab on the right side of the tape seal. Pull the orange tab straight out, and then discard both the orange tab and the tape seal. If the ring breaks off from the tape, pull the tape by its end.



Replacing a Toner Cartridge

6 Slide the toner cartridge in the printer.

Grasp the tabs on the toner cartridge and place the cartridge on the rails inside the printer. Then lift the tabs slightly, and slide the cartridge straight back into the printer until it is firmly seated.



7 Close the printer's top cover.



3

Advanced Printing Features

In This Chapter . . .

- “High-Resolution Printing” on page 3-2
 - “Printing Duplex” on page 3-6
 - “Cassette Chaining” on page 3-9
 - “Collating Output” on page 3-10
 - “Working with Status Pages” on page 3-13
 - “Cancelling/Ending Print Jobs” on page 3-14
-

Introduction

This chapter describes changing print resolution, using high-resolution while duplexing, chaining paper cassettes, collating output, printing a status page, cancelling a print job, and ending a print job.

High-Resolution Printing

The QMS 2425/2425 *TURBO* Print System supports three print resolutions: 300x300, 600x600, and with Multi-Res daughterboard. For printed pages that don't require optimum print quality, such as rough drafts, memos, or text-only pages without graphics (dependent on shading details), you may choose to set the printer at 300 dpi. Printing at 300 dpi reduces the amount of processing time the printer requires before printing the page. For pages that demand high-quality output, especially those containing detailed graphics or varying background shades, you'll want to set the printer resolution to a higher resolution.

- » **Note:** *To print at 1200x1200 dpi you need to install an optional Multi-Res daughterboard, and you may also need to add more memory. (See the "How Much Memory Do You Need?," section beginning on page 3-3 of this chapter for memory details.)*

Setting the Resolution

You can set the default resolution of your printer through the Administration/Engine/Def Resolution menu.

Menu	Administration/Engine/Def Resolution
Choices	300 dpi—300x300 dpi resolution. 600 dpi—600x600 dpi resolution. » Note: <i>If you have the optional Multi-Res daughterboard installed, the 1200 dpi option also appears.</i>
Default	600 dpi

Your printer offers greatly improved print quality at 600 and 1200 dpi. To take best advantage of these higher resolutions use

- The resident PostScript and PCL 5e typefaces
 - The QMS printer drivers designed for your printer
- » **Note:** *Whenever possible, set the print resolution through your application. If the print resolution can't be set through the application, through the printer driver, through the printer configuration menu, or through QMS Document Option Commands.*

Smoothing

Your 2425/2425 *TURBO* Print System offers a smoothing option under the Administration/Engine/Print Quality menu. See chapter 4, "Printer Configuration," of *Reference* for details on this QMS edge-smoothing technique which alters the size and position of dots that lie on the outer edges of an object by reducing the width of the laser pulse to a fraction of the full pulse width. It smooths jagged-edges in text, lines, and graphics and generally improves their print quality.

- » **Note:** *When you are printing halftones, smoothing is not recommended because it may introduce artifacts in the halftone or scanned image. For better results, if smoothing is required for your documents in text and line art, use the basic option for halftone types.*

How Much Memory Do You Need?

Your QMS 2425/2425 *TURBO* Print System base model comes with 8 MB of memory, the executive model comes with 24 MB of memory, and the 2425 *TURBO* EX comes with 32 MB of memory.

The following tables list the minimum framebuffer and total system memory requirements for each resolution/media combination.

- » **Note:** *If a certain resolution is chosen and the minimum amount of memory is not installed in the printer, the file is printed using the next lower resolution. For example if you have a base-model printer and you choose 600 dpi resolution, legal media, and duplex (optional duplexer required), but the printer has only the standard memory instead of the required 10 MB minimum, the file prints at 300x300 dpi.*

High-Resolution Printing

Minimum Framebuffer Memory Requirements

Media Size	Minimum Framebuffer RAM (in MB)					
	300x300 dpi		600x600 dpi		1200x1200 dpi	
	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
A3	2	4	8	16	32	64
A4	1	2	4	8	16	32
Executive	1	2	4	8	13	26
11 x 17	2	4	8	16	32	64
Legal	1.5	3	5	10	20	40
Letter	1	2	4	8	16	32
Universal	2.2	4.4	8.6	17.2	34.4	68.8

Minimum System Memory Requirements

- » **Note:** This table lists the values for a system without a hard disk installed.

Media Size	Minimum System RAM (in MB)					
	300x300 dpi		600x600 dpi		1200x1200 dpi	
	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
A3	6	8	12	20	36	68
A4	5	6	8	12	20	36
Executive	5	6	8	12	17	26
11 x 17	6	8	12	20	36	68
Legal	4.5	7	9	14	24	44
Letter	5	6	8	12	20	36
Universal	6.2	8.4	12.6	21.2	38.4	72.8

- » **Note:** *This table lists the values for a system with a hard disk installed and disk swapping enabled.*

Media Size	Minimum System RAM (in MB)					
	300x300 dpi		600x600 dpi		1200x1200 dpi	
	Simplex	Duplex	Simplex	Duplex	Simplex	Duplex
A3	4	6	10	18	34	66
A4	3	4	6	10	18	34
Executive	3	4	6	10	15	24
11 x 17	4	6	10	18	34	66
Legal	3.5	5	7	12	22	42
Letter	3	4	6	10	18	34
Universal	4.2	6.4	10.6	19.2	36.4	70.8

You may need additional memory (SIMMs) for the following:

- To print complex graphics or complex PostScript documents
- For increased collation performance
- For increased spooling performance

See chapter 2 of the *Options* guide, the “Single In-Line Memory Modules” section, for more information on installing SIMMs.

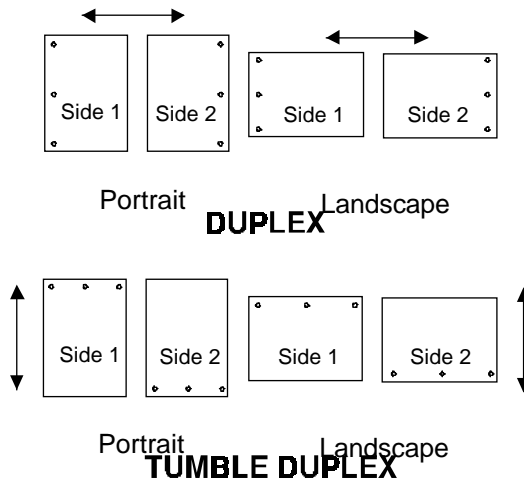
- » **Note:** *The 2425 TURBO EX requires 8 MB additional RAM due to the system image running out of RAM since there is no flash memory in this configuration.*

Printing Duplex

The QMS 2425/2425 TURBO Print System supports duplex printing.

- From either universal cassette on any supported size media (17—28 lbs/64—105 g/m²). When the optional duplexer is installed, media is automatically fed via the media cassettes.
 - » **Note:** *Odd-size paper cannot be used in automatic duplex printing as it will cause media jams.*
 - From the multipurpose tray on any supported size media by manually inserting the media in the tray and printing on one side, and then manually flipping the media, inserting it in the tray again, and then printing on the other side.
-
- ▲ **Caution:** *Duplexing may lower the print quality, cause media jams, or cause media to curl or wrinkle. With the minimum system memory available, graphics intensive duplex printing at 600 dpi or 1200 dpi with error recovery on reduces engine speed. Duplex printing is not possible on envelopes, labels, and transparencies.*
-

There are two types of duplex printing: duplex and tumble duplex. This illustration shows the difference between these two types, using three-hole-punched paper as an example.



Automatic via a Cassette

Once the duplex printing option is installed on your printer, the Duplex option appears in the Operator Control menu. See chapter 4, "Printer Configuration," in the *Reference* guide for more information on this option. Use your application to choose duplexing on a per-job basis or the configuration menu to set duplexing as the default for all print jobs.

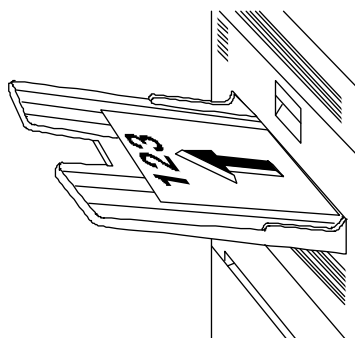
» **Note:** *Odd-size paper cannot be used in automatic duplex printing.*

Manual Feed via the Multipurpose Tray

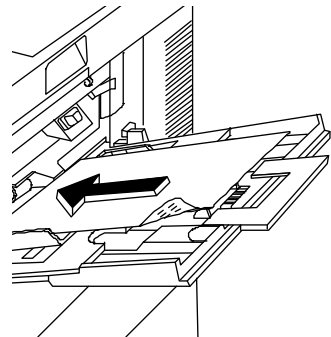
For duplex printing from the multipurpose tray, follow this procedure:

- 1 **Access the Configuration menu and set the printer to Manual Feed.**
- 2 **Print on one side of the media.**
- 3 **Insert the media in the multipurpose tray with the leading edge first and the side you want to print next facing down.**

▲ **Caution:** *Straighten the leading-edge of the media if it's curled because curling can cause print media jams and wrinkles. Also, make sure that the media guides are set to the width of the media. Printing problems may occur if they're set too loose or too tight.*



Printing on one side



Printing on the other side
(Loading from the tray)

High-Resolution and Duplex Printing

If your printer has the optional duplexer, duplexing option, you can print on any of the media sizes at 300x300 dpi. However, printing duplex via the cassettes at 600x600 dpi resolutions may require additional memory. (See the memory table in the previous section for each resolution/media size memory requirement).

Duplex Printing Tips

- Select paper with high opacity for duplex printing. Opacity refers to how much paper blocks out what is written on the opposite side of the page. Paper with high opacity has low transparency. If paper has low opacity (high transparency), then the printed data from one side of the page will show through to the other side. For best results, test a small quantity to make sure the opacity is acceptable.
- For duplex printing on pre-printed letterheads, place the sheet face-down with the bottom of the page inserted first. In the duplex mode, the printer prints side two first, then side one.

Cassette Chaining

The QMS 2425/2425 *TURBO* Print System comes standard with two 500-sheet universal cassettes (also known as trays or input bins) for a total media capacity of approximately 1000 sheets before a reload is necessary. You may choose to have the printer automatically draw from another cassette when the current cassette empties. Here are five ways to chain cassettes:

- Your application may include a specific procedure for using a dual-cassette printer. Check your documentation.
- The QMS Level 2 Windows printer driver allows you to select an alternate cassette for chaining.

On a network, use CrownAdmin2 via a remote console to configure chaining.
- Configure the printer through configuration menu. The following section has more information.

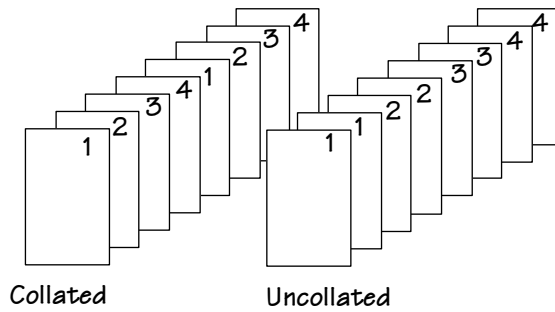
Using the Configuration Menu

The Chain Inputbins option in the Operator Control menu allows you to “chain” inputbins (tray and cassettes) so that when the first inputbin empties, the printer automatically draws paper from another inputbin.

Menu	Operator Control/Chain Inputbins
Choices	On—Switches to the next inputbin with the same size and type of media when the default inputbin is empty. Off—Doesn’t switch inputbins; uses only the default inputbin. On Any—Switches to the next inputbin, regardless of the size and type of media installed, when the default input bin is empty.
Default	On
Notes	Use the Operator Control/Inputbin menu to set the default inputbin. Also, make sure that the two cassettes installed in your printer are set to the same size media.

Collating Output

Collation is the printing of sets of multiple copies of a document in numeric order. The QMS 2425/2425 *TURBO* Print System is collation capable. It can deliver multiple copies of your document in collated or uncollated order to the output tray. The following illustration shows the collated and uncollated stacking for two copies of a four-page file.



- » **Note:** *When using the collation with other features, such as stapling, ensure that the collation is disabled in your Windows application Print dialogue box but enabled in the QMS printer driver.*

Improving Collation Performance

To greatly improve collation performance, which allows you to collate longer and more complex print jobs on the QMS 2425/2425 *TURBO* Print system, you can do one of the following:

- Add more printer memory, which automatically increases the Display List client's memory setting. See chapter 2, "Memory and System Software," of the *Options* manual for information on how to install additional memory.

- Take any memory, if available and not being used by other clients, and add it to Administration/Memory/K Mem Display.
- ▲ **Caution:** *This option should be used only by individuals who are familiar with adjusting memory settings. Incorrect use of this option could cause your system to operate incorrectly.*
- If your printer has an optional hard disk and if Administration/Memory/Enable Disk Swap is set to On, then any extra memory is distributed to all memory clients.
- Collate through your application.
- » **Note:** *Collating through your application is more time consuming than collating through the printer. The application sends the complete job the requested number of times rather than sending it once and holding data in printer memory.*

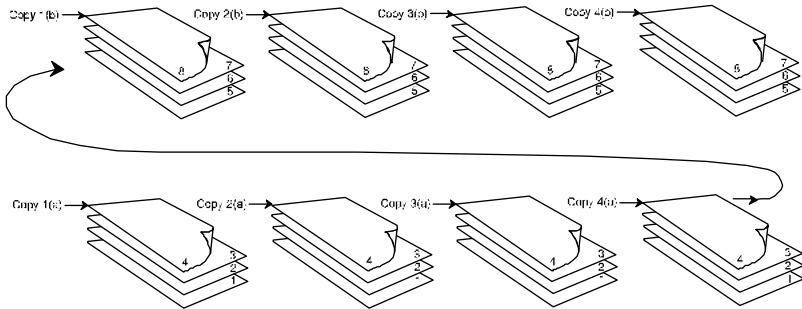
For a multiple-copy document with collation On, there must be enough Display List memory to hold the display list blocks for all pages in the collation range. (See the “Display List” memory section in the *Reference*, for detailed information on display list blocks.) If there is not enough memory, then a chunk collation boundary is forced after the last compiled page of the collation range.

Chunk Collation

This mechanism of introducing a forced boundary is known as chunk collation. Chunk collation breaks a document into several smaller, more manageable sets by gathering the pages into “chunks.” When each set is printed, it frees up memory resources to compile subsequent pages of the document.

Collating Output

For example, in the following illustration, copies “a” and “b” of each set must be manually combined to create one collated document. The order of printing is copy 1(a), copy 2(a), copy 3(a), copy 4(a), copy 1(b), copy 2(b), copy 3(b), and copy 4(b).



- » **Note:** *The order of output on the your QMS 2425/2425 TURBO Print System is from first to last page in both the face-up and face-down output trays. So on the base model of this printer (with 8 MB memory), complex multiple-page document sent via the face-up output tray must be chunk collated to ensure that the order of pages is first to last.*

However, the base model system may have insufficient memory to store the entire document before printing begins, so you could experience unexpected ordering of your output pages. With the executive model of this printer with 24 MB of memory, and with the 2425 TURBO EX with 32 MB of memory, you add additional memory to the base model system to avoid this type of chunk collation problem. See appendix A, “QMS Customer Support,” for sales and support telephone numbers.

Advantages of Collation

The main advantages of collation are user convenience and the time savings derived from not having to separate and sort individual copies of a print job. Each copy of the print job exists as a whole set unless chunk collation has occurred.

If chunk collation does occur, it may be best to use a header and trailer page to determine the beginning and end of each collation sequence. (See chapter 4, “Printer Configuration,” of the *Reference* for information on using header and trailer pages.)

Working with Status Pages

Printing a status page is a two-step procedure: Identify the type of status page you want to print, and then print it.

Identifying a Status page Type

Two types of status pages are available

Menu	Administration/Special Pages/Status Page Type
Choices	Standard, Advanced
Default	Standard

Standard

This one-page document provides

- Printer identification (the printer’s name, firmware information, and number of sheets printed)
- Printer settings (printer set-up options for paper handling)
- Current memory configuration (printer memory settings)
- Timeouts (printer timeout settings)
- Communication settings and input buffer sizes (host-printer communication settings, including spooling memory sizes)
- Tickmarks in the lower-left corner for image alignment

Cancelling/ Ending Print Jobs

Advanced

This document, which can be five or more pages long, provides

- All the information from the standard status page
- The configuration menu settings
- A full list of fonts and downloaded emulation

Printing a Status Page

After you have identified the type of status page, press the Print Status key on the control panel to print it.

Cancelling/Ending Print Jobs

The Cancel key has three functions:

- It cancels the oldest print job in the system.
- It cancels all jobs with a printing, interpreting, terminating, or spooled status.
- It allows you to send an end-of-job indicator to a currently compiling print job waiting on incoming data.

You don't have to press the Online key before using the Cancel key. There are no equivalent functions in the configuration menu.

Cancel a Single Print Job

Press the control panel keys in the order shown in the following instructions to cancel a single print job.

Press this key...	to...	The message window reads...
Cancel	Access the JOB CANCEL menu.	JOB CANCEL CANCEL JOB
Cancel or Select	Cancels the job currently printing, interpreting, spooling, or terminating. The CANCEL JOB message displays until the print job is completely removed.	CANCEL JOB IS SELECTED

Cancelling all Print Jobs

Press the control panel keys in the order shown in the following instructions to cancel all print jobs.

Press this key...	to...	The message window reads...
Cancel	Access the JOB CANCEL menu.	JOB CANCEL CANCEL JOB
Next (twice)	Advance to the Cancel All Jobs option.	JOB CANCEL CANCEL ALL JOBS
Cancel or Select	Cancel all jobs with a printing, interpreting, spooled, or terminating status. The CANCEL ALL JOBS message displays until all print jobs are completely removed.	CANCEL ALL JOBS IS SELECTED

-
- ▲ **Caution:** *Keep in mind that **all** jobs with a printing, interpreting, or terminating status are cancelled.*
-

Ending a Print Job

- » **Note:** *This procedure does not end print jobs that are still receiving data. Its only purpose is to provide an end-of-job indicator for a print job that does not have one. You can identify an end-of-job indicator in the Administration/Communications/Parallel and Administration/Communications/Serial menu. (See chapter 4, "Printer Configuration," in the Reference for more information). Also see chapter 5, "Additional Technical Information," in the Reference for a complete discussion of End Job Mode.*

When the message window displays

```
WAITING ON INPUT  
END JOB?
```

press the control panel keys in the order shown in the following instructions to end a print job.

Press this key...	to...	The message window reads...
Cancel	Access the JOB CANCEL menu.	JOB CANCEL CANCEL JOB
Next (twice)	Advance to the End Job mode.	JOB CANCEL END JOB
Cancel or Select	Select End Job.	END JOB IS SELECTED



4

Printer Care

In This Chapter . . .

- “Handling the Printer” on page 4-2
 - “Cleaning the Printer” on page 4-3
 - “Using the Maintenance Kit” on page 4-9
 - “Repacking the Printer” on page 4-10
-

Introduction

This chapter describes how to handle and clean the printer.

Blurred or splotchy prints and paper jams can result from dusty printer parts. Regular cleaning takes only a few minutes and helps ensure print quality. Printer parts that require cleaning are the paper pick-up rollers and the outside surface of the printer.

Handling the Printer

Handle the printer with care to preserve its life. Abuse may cause damage. Keep the following guidelines in mind:

- Avoid spraying cleaning solution directly on the printer's surface; the spray could penetrate through the air vents of the printer and damage the internal circuits.
- Be careful when cleaning the inside or removing paper jams, as the fixing assembly and other internal parts become very hot. Leave the printer cover open before handling the inside of the printer.
- Do not close the covers abruptly, or expose the printer to vibrations.
- Do not cover the printer immediately after using it. Turn it off and wait until it cools down.
- Do not leave the printer open for any length of time, especially in well-lit places; light may damage the toner cartridge.
- Do not open the printer during printing and do not tap paper stacks on the printer.
- Do not place anything on the printer and/or option deck covers.
- Do not tilt, lubricate, or disassemble the printer.

- Do not touch the electrical contacts, gears, or laser beam devices. Doing so may damage the printer and cause the print quality to deteriorate.
- Keep media in the output tray at minimum level. If the media stacks too high, your printer may experience media jams and excessive media curl.
- Make sure two people are available to lift the printer when moving it. The printer weighs about 106 lbs (48 kg); do not attempt to move it by yourself.
- Keep the following in mind when storing the printer for an extended period:
 - Unplug the printer.
 - Remove the toner cartridge from inside the printer. After removing the cartridge from the printer, return it to the aluminum bag in which it was originally packaged or wrap it in a thick cloth to protect it from direct sunlight or any other bright light.
 - See the “Environmental Requirements” section of appendix B, “Technical Specifications,” in the *Reference* guide, for storage specifications.

Cleaning the Printer

Fine particles of dust from the paper may accumulate inside the printer which could affect the printer's performance. The printer should be cleaned on a regular basis to prevent potential malfunctions. You need to clean only the following areas:

- The outside of the printer
- The anti-static teeth
- The transfer guide area
- The registration roller area

Cleaning Guidelines

-
- **WARNING!** *Turn off the printer, unplug the power cord, and disconnect any interface cables before cleaning.*

ACHTUNG! *Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen.*

In addition to unplugging the printer, follow these guidelines when cleaning the printer:

- Clean the printer before use or allow a few minutes after unplugging it so that the fusing unit can cool down.
- Do not leave moisture inside the printer. Allow all parts to dry thoroughly before closing the printer cover.
- Use a soft, lint-free cloth.

Cleaning the Outside of the Printer

-
- **WARNING!** *Turn off the printer, unplug the power cord, and disconnect any interface cables before cleaning.*

ACHTUNG! *Ziehen Sie den Netzstecker aus der Steckdose bevor Sie den Drucker reinigen.*

To protect and maintain the appearance of your printer, wipe the cover and external parts with a soft cloth moistened with water or mild detergent.

-
- **WARNING!** *Do not spill water or detergent into the printer or the printer will be damaged and an electric shock may occur.*

ACHTUNG! *Verschütten Sie kein Wasser oder andere Flüssigkeiten auf dem Drucker, da das Gerät sonst beschädigt wird oder die Gefahr eines elektrischen Schlages besteht.*

-
- ▲ **Caution:** Avoid using solvents, such as alcohol and benzene, or sprays as they may damage the finish.
-

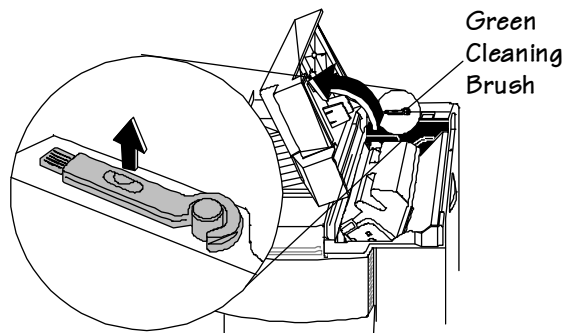
Cleaning the Anti-static Teeth

- **WARNING!** Turn off the printer, unplug the power cord, disconnect any interface cables, and make sure that the fusing unit has cooled down before cleaning.

ACHTUNG! Schalten Sie vor der Reinigung bitte den Drucker aus, ziehen den Netzstecker heraus und entfernen alle Kabel von den Schnittstellenanschlüssen, bis die Fixiereinheit abgekühlt ist.

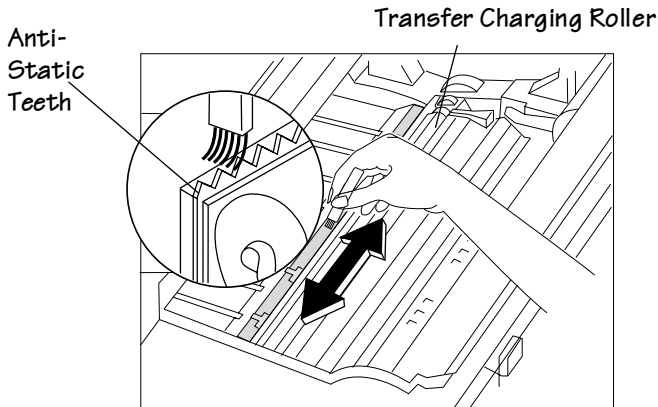
To maintain clear, crisp print quality, and to help prevent paper jams, clean the anti-static teeth after replacing a toner cartridge, or when necessary. Use the following procedure:

- 1 Open the top cover and remove the toner cartridge.**
 - » **Note:** If you plan to reinstall the toner cartridge, put it back in its aluminum bag or a desk drawer, or cover it with a thick cloth while cleaning the interior of the printer. The toner cartridge can be damaged by exposure to light.
- 2 Remove the green cleaning brush from the inner right side of the printer.**



Cleaning the Printer

- 3 Slide the brush back and forth a few times to clean the anti-static teeth.



-
- ▲ **Caution:** *When cleaning the anti-static teeth, be careful not to touch the transfer charging roller. This may deteriorate print quality.*
-

- 4 Return the brush and toner cartridge to the printer.
- 5 Close the top cover.
- 6 Connect the interface cables and turn on the printer.

Cleaning the Transfer Guide Area

-
- ⚠ **WARNING!** *Turn off the printer, unplug the power cord, disconnect any interface cables, and make sure that the fusing unit has cooled down before cleaning.*

ACHTUNG! *Schalten Sie vor der Reinigung bitte den Drucker aus, ziehen den Netzstecker heraus und entfernen alle Kabel von den Schnittstellenanschlüssen, bis die Fixiereinheit abgekühlt ist.*

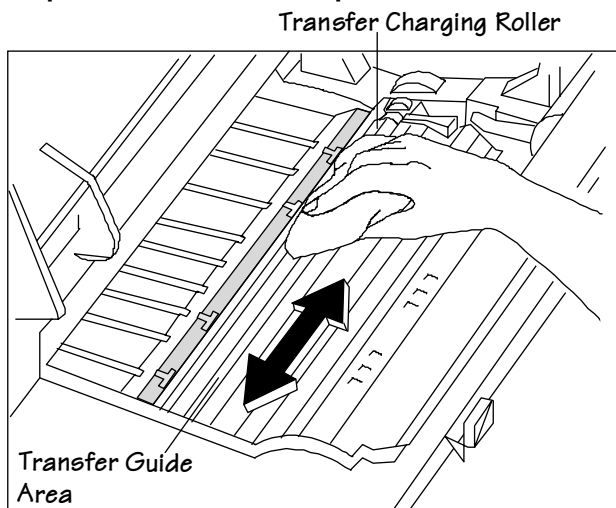
Cleaning the Printer

To maintain clear, crisp print quality, and to help prevent paper jams, clean the transfer guide area after replacing a toner cartridge, or when necessary. Use the following procedure:

1 Open the top cover and remove the toner cartridge.

- » **Note:** *If you plan to reinstall the toner cartridge, put it back in its aluminum bag or a desk drawer, or cover it with a thick cloth while cleaning the interior of the printer. The toner cartridge can be damaged by exposure to light.*

2 Wipe off any toner residue and paper dust from the silver metal strip with a soft cloth dampened with water.



3 Then use a soft dry cloth to wipe off any remaining water.

- ▲ **Caution:** *When cleaning the transfer guide area, be careful not to touch the transfer charging roller. This may deteriorate print quality.*

4 Return the brush and toner cartridge to the printer.

5 Close the top cover.

6 Connect the interface cables and turn on the printer.

Cleaning the Registration Roller Area

-
- **WARNING!** *Turn off the printer, unplug the power cord, disconnect any interface cables, and make sure that the fusing unit has cooled down before cleaning.*

ACHTUNG! *Schalten Sie vor der Reinigung bitte den Drucker aus, ziehen den Netzstecker heraus und entfernen alle Kabel von den Schnittstellenanschlüssen, bis die Fixiereinheit abgekühlt ist.*

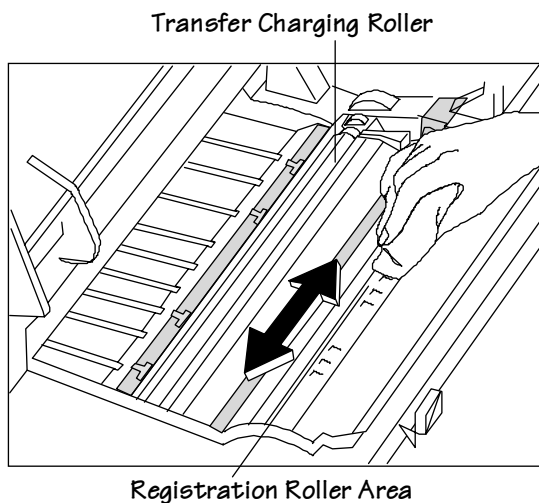
To maintain clear, crisp print quality, and to help prevent paper jams, clean the registration roller area (around the guide lock plate tray) after replacing a toner cartridge, or when necessary. Use the following procedure:

- 1 Open the top cover and remove the toner cartridge.**
 - » **Note:** *If you plan to reinstall the toner cartridge, put it back in its aluminum bag or a desk drawer, or cover it with a thick cloth while cleaning the interior of the printer. The toner cartridge can be damaged by exposure to light.*

Using the Maintenance Kit

- 2 Wipe off any toner residue and paper dust from the registration roller area with a soft cloth dampened with water. Then use a soft dry cloth to wipe off any remaining water.

▲ **Caution:** *When cleaning the registration roller area, be careful not to touch the transfer charging roller. Finger oil, other contaminants, or scratches on the roller may reduce print quality.*



- 3 Return the brush and toner cartridge to the printer, then close the top cover.
- 4 Connect the interface cables and turn on the printer.

Using the Maintenance Kit

After about every 350,000 prints, the fixing assembly, the transfer charging roller and gear assembly, and the feed and retard rollers should be replaced. See chapter 9 of the *Options* guide, the “Installing the Maintenance Kit” section, for details on this kit.

Repacking the Printer

If you need to relocate or ship your QMS 2425/2425 *TURBO* Print System after it has been installed, you must follow the procedures in this section to prevent damage to the printer and to keep your warranty valid.

-
- ▲ **Caution:** *QMS cannot be held responsible for damage to your printer during shipment that results from the improper packaging of your printer. You **must** use the instructions given in this section before repacking the printer in its original shipping box with the original packing materials.*

*If you need replacement packaging, in the US call QMS National Service at 1 (334) 633-4300 x 2530. If you need to return the printer for service, in the US call QMS Customer Service at 1 (334) 633-1072 for an RMA (Return Merchandise Authorization) number **before** shipping the printer. In other countries, refer to appendix A, "QMS Customer Support."*

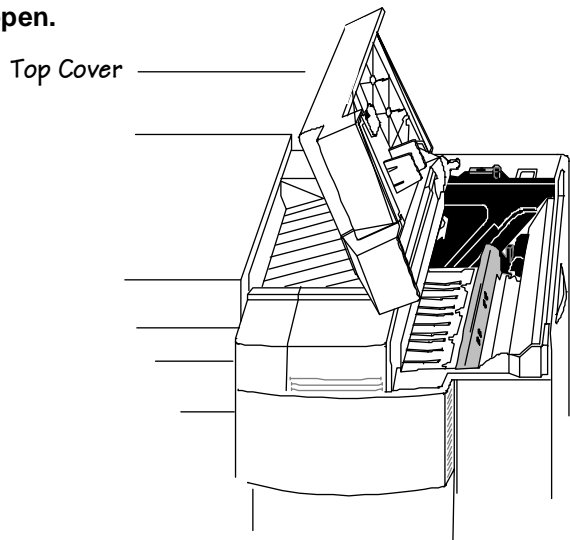
Remove Cables and Cassette(s)

- 1 Turn off the printer.
 - 2 Remove the power cable and all interface cables.
 - 3 Remove the paper cassette(s) from the printer.
 - 4 Remove the paper from the cassette(s).
 - 5 Repack the cassettes in their original shipping boxes for shipping or storage.
- » **Note:** *If you're returning the printer for service, you don't need to return the power cable, interface cables, sheet feeder, output stacker, or cassettes.*

Remove the Toner Cartridge

- » **Note:** *The toner cartridge is sensitive to bright light. Do not remove the cartridge from the printer until you're ready to return it to its protective bag. Store the cartridge in an environment that is not subject to extreme heat or humidity, salty air, or corrosive gases, such as aerosols. Keep the toner cartridge away from your computer. The magnets in the cartridge can damage data, particularly on your floppy disks.*

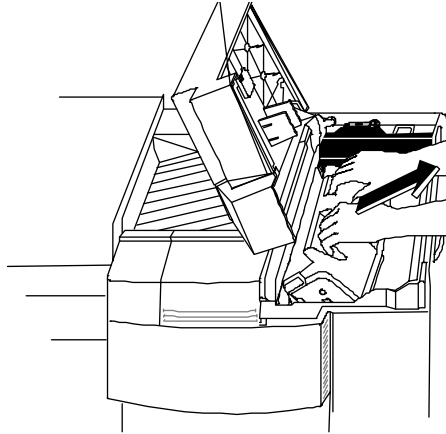
- 1 Lift the top cover as far as it will open.**



Repacking the Printer

2 Remove the toner cartridge.

While grasping the handle of the toner cartridge, remove the cartridge by pulling it up and then towards you.



3 Repack the toner cartridge in its original protective aluminum bag and shipping carton.

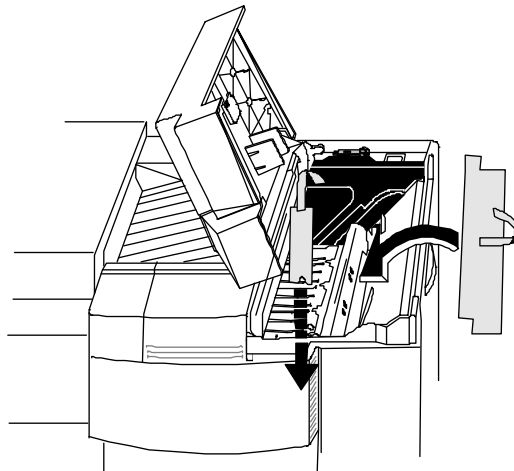
- » **Note:** *If you're disposing of the toner cartridge, put it in a trash receptacle. Don't dispose of it by burning.*

Repack the Printer

⚠ WARNING! *The printer weighs about 106 lbs (48 kg). Don't lift it by yourself.*

ACHTUNG! *Der Drucker wiegt ca 48 kg; bitte versuchen Sie niemals, das Gerät alleine anzuheben oder zu tragen.*

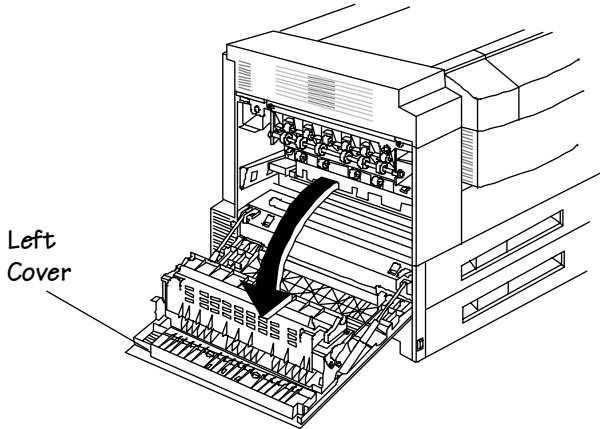
- 1** Insert the packing material that was originally removed upon installation of the printer.



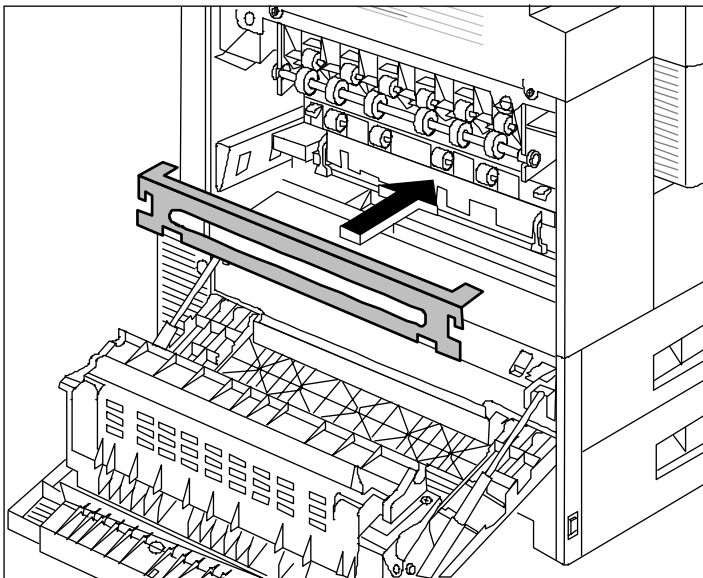
- 2** Close the printer's top cover.

Repacking the Printer

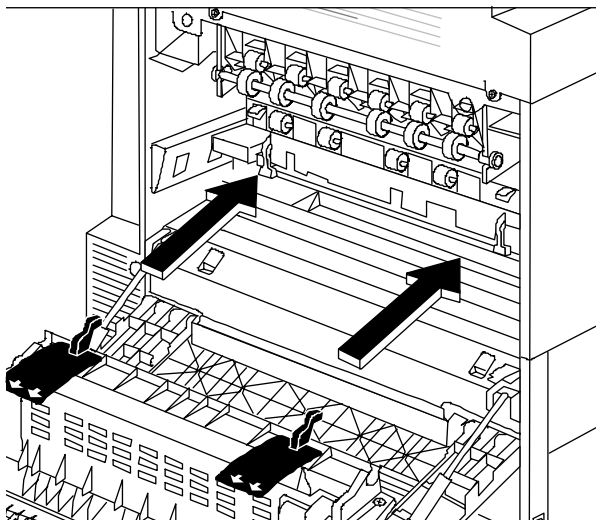
- 3 Lift the latch to pull open the left cover and gently lower it until it stops.



- 4 Replace the cardboard that was originally removed from the fixing assembly area upon installation of printer.



- 5 Replace the two spacers that were removed from the fixing assembly upon installation of the printer, and then close the left cover.



- 6 If you have an optional feeder, remove it from the printer, and then repack it for storage.
 - 7 Put the printer back in its original protective plastic bag.
 - 8 Get someone to help you with this step: Lift the printer back into its original shipping carton.
- » **Note:** *If you're returning the printer for service, you don't need to return the toner, paper cassette(s), sheet feeder, output stacker, power cable, or interface cables.*



5

Print Quality

In This Chapter . . .

- “About Halftone Types” on page 5-2
 - “About Print Density” on page 5-3
 - “About Print Resolution” on page 5-4
-

Introduction

Density, gamma correction, and print resolution are some of the factors that affect print quality. High-resolution technology, while more complex, gives you more flexibility to control the print quality factors. This chapter will aid you in setting your printer up for maximum performance. For a more detailed explanation of factors that affect your printer's output, refer to chapter 5, "Additional Technical Information," in your *Reference* guide.

About Halftone Types

The ability of the printer to produce halftones allows you to add scanned images or halftone graphics to your documents.

Your printer provides three different types of halftones—basic, advanced, and standard.

Menu	Administration/Emulations/PostScript/Halftone Type
Choices	Basic—See the following table for details on screen frequency, screen angles, and gray levels. Standard—See the following table for details on screen frequency, screen angles, and gray levels. Advanced—See the following table for details on screen frequency, screen angles, and gray levels.
Default	Standard

These options allow you to customize the smoothness of the printed image according to the number of grayscales it uses. The number of gray levels increase by increasing the halftone type and the printer resolution.

About Print Density

Halftone Type	300 DPI			600 DPI			1200 DPI		
	LPI	Angle	Level	LPI	Angle	Level	LPI	Angle	Level
Basic	53.03	45.0	33	70.71	45.0	73	84.85	45.0	200
Standard	53.03	45.0	129	106.06	45.0	129	106.06	45.0	256
Advanced	67.08	26.56	81	102.89	59.04	137	126.49	18.43	256

See chapter 5, “Additional Technical Information,” in the *Reference*, for more detailed information on halftones and how to change their characteristics via the printer configuration menu.

- » **Note:** *The standard settings listed in this table are optimized for performance, and the advanced settings are optimized for quality.*

About Print Density

Print density is the amount of toner placed on each dot, making the print appear lighter or darker. The higher the density, the darker the print looks and the higher the contrast is on the page. Toner density can be used to change contrast on scanned images, or to customize smoothing.

- » **Note:** *If the print density is too light, make sure that the Administration/Engine/Print Quality/Normal option is turned on before making any adjustments. The Conserve Toner option saves toner by simulating draft-quality printing. (See chapter 4, “Printer Configuration,” of the Reference for more information.)*

Adjust the print density using the Administration/Engine/Toner Density setting.

Menu	Administration/Engine/Toner Density
Choices	00—15 00—The lightest available setting 15—The darkest available setting
Default	07

About Print Resolution

Another way to sharpen the images printed on your pages is through setting the print resolution. Your printer is capable of printing at 300, 600, and 1200 dpi. This choice of resolutions allows you to customize the quality of your output according to its use. For pages requiring the best quality your printer can provide, set the printer resolution to 600 dpi or to 1200 dpi if the optional Multi-Res daughterboard is installed with appropriate memory.

- » **Note:** *Printing at 600x600 dpi resolution on certain media sizes requires additional memory. To print at 1200x1200 dpi you need to install an optional Multi-Res daughterboard, and you may also need to add more memory. See the “High-Resolution Printing” section in chapter 3, “Advanced Printing Features,” of this manual for memory and high resolution printing details. See the Options manual for more information on the Multi-Res daughterboard.*

Setting the Resolution

You can set the default resolution of your printer through the Administration/Engine/Def Resolution menu.

Menu	Administration/Engine/Def Resolution
Choices	300 dpi—300x300 dpi resolution 600 dpi—600x600 dpi resolution » Note: <i>If you have the optional Multi-Res daughterboard installed, the 1200 dpi option also appears.</i>
Default	600 dpi



6

Troubleshooting Printer Problems

In This Chapter . . .

- “Status Messages” on page 6-2
 - “Testing PC-Printer Communication” on page 6-10
 - “Printer Problem Checklist” on page 6-16
 - “Media Jams” on page 6-18
 - “Stapler Jams” on page 6-42
 - “Clearing CrownCopy ADF Paper Jams” on page 6-36
 - “Windows Driver Problems” on page 6-51
 - “CrownNet Problems” on page 6-52
 - “Output Problems” on page 6-52
 - “Kanji Option Kit Problems” on page 6-55
 - “Print Quality Problems” on page 6-57
 - “Image Defects” on page 6-59
-

Introduction

This chapter provides information to aid you in resolving printer problems you may encounter, or at least guide you to the proper sources for help. You'll find in this chapter tables of common status messages, a problem checklist, and actions you should take when a specific problem occurs. There are step-by-step instructions for removing media jams from key locations along the media path, as well as descriptions of common print quality problems with corresponding solutions. You'll also find what information you'll need to have before placing a service call if one becomes necessary.

Status Messages

Printer control panel messages help you locate many problems. When the printer needs operator assistance, the message window displays one of the following messages:

This status message...	means...	do this...
ACC ALREADY DISABLED	The accounting option selected is already in effect.	
ACC ALREADY ENABLED	The accounting option selected is already in effect.	
ACC DISABLED	The accounting option selected is already disabled.	
ACC ENABLED	The accounting option selected is already in effect.	

This status message...	means...	do this...
ACC FILES GOT REMOVED	The accounting option is disabled and the accounting files are empty. After a reset, the files are removed. This prevents you from wasting disk space with empty accounting files.	
ACC XXXXXXXX FILE FULL	The specified file is full.	(XXXXXXXX represents the specified accounting file—Job Accounting file or Paper Accounting file.) If you want accounting enabled, copy these files to floppy disk/s or transfer them to your host computer using ftp (if available). Then reset the accounting files so that new jobs can be accepted. If you do not want to use accounting, you can disable it.
ACC FILE IS XXX % FULL	The Job Accounting File is 80% or more full (XXX represents the percentage full in increments of 5%.	See ACC XXXXXXXX FILE FULL error for recovery information.
ACC FILES NOT EMPTY, CANNOT SHRINK, KEEPING OLD SIZE	The Job Accounting file can be reduced in size only after a reset when the file is empty.	

**Status
Messages**

This status message...	means...	do this...
x ACTIVE JOBS	The printer is on line. (x identifies the number of jobs in process.)	
ADJUST INPUTBIN BIN	The specified input bin (cassette) is not inserted correctly.	Adjust the cassette, Multipurpose tray.
INPUTBIN BIN JAM	Media has jammed while being pulled from the specified input bin.	Clear jam from the specified input bin. See "Media Jams" on page 6-18.
CANCEL JOB	The Cancel key has been pressed and all of the print jobs in the print queue are being canceled.	Press Select and the oldest job in the print queue will be canceled.
CANCEL ALL JOBS	The Cancel key has been pressed and all of the print jobs in the print queue are being canceled.	Press Select for all jobs with a printing, interpreting, spooled, or terminating status to be completely removed from the system.
CREATED FILE	The accounting file is being created.	
CREATING XXXXXXXXXXXXX FILE, PLEASE WAIT	The specified accounting file is created when accounting is enabled and the files are not in existence or these files are created following a Reset Accounting. (XXXXXXXXXXXXX represents the Job Accounting or Paper Accounting file.	

This status message...	means...	do this...
END JOB	The Cancel key has been pressed.	Press Select to provide an end-of-job indicator for a print job that does not have one
CLOSE ENGINE DOOR(S)	One or more of the front or side covers is open and must be closed.	Close the front or side covers.
DUPLEXER ABSENT	The optional duplexer unit is not installed.	
DUPLEXER JAM	Media has jammed while passing through the duplexer.	Locate and clear the media jam. See "Media Jams" on page 6-18.
EXTENDED ACCOUNTING FILE SIZE	The size of the non-empty accounting file has been increased successfully.	
FINISHER STAPLE JAM	The Stackler has a staple jam.	Use the instructions in "Media Jams" on page 6-18 of this chapter.
IDLE	The printer is on line, but no jobs are in process.	
ILLEGAL DUPLEX PRINTING	The optional envelope feeder was selected as the input bin and the duplexer as the output bin. The printer does not support duplexing envelopes.	Access Operator Control/Duplex via the control panel and set Duplex to Off.
ILLEGAL MANUAL FEED PRINTING	Media has been inserted in the manual feed slot before the paper tray lifting mechanism is in the ready position.	Remove the media and reinsert it.
INITIALIZING	The printer is getting ready to go on line.	

**Status
Messages**

This status message...	means...	do this...
INPUT IDLE PRINTING	The printer is on line and printing jobs already in the queue. No new jobs are arriving at the communication interfaces.	
LOAD STAPLES PRESS STAPLE TAB	The stapler is out of staples.	Use the instructions in chapter 8, "Document Finishing Options" the "Replacing the Staple Cartridge" section of the <i>Options</i> manual.
OUTPUTBIN <i>OUTPUTBIN</i> FULL	The specified tray or output bin is full.	Normally this indicates that you need to remove the pages.
OUTPUTBIN <i>OUTPUTBIN</i> JAM	Media has jammed between the print engine and the specified output bin (tray).	Locate and remove the jam. See "Media Jams" on page 6-18.
PRINTING STATUS	A status page is printing	Wait until after the status page prints, and the message clears.

This status message...	means...	do this...
PUT <i>SIZE</i> PAPER IN <i>INPUTBIN</i> BIN	That Operator Control/Chain Inputbins is set to Off and that the displayed cassette or tray is empty. Refill it with the specified size media. In the case of a cassette, <i>SIZE</i> is the media size detected by the engine. In the case of the tray, the <i>SIZE</i> is the media size of the tray configured in the Operator Control Multipurpose Sz menu. <i>INPUTBIN</i> is the empty cassette or tray (the default input bin set i the Administration/Engine/ Inputbin # menu).	Refill the empty cassette with the specified media size.
PUT <i>SIZE</i> PAPER IN ANY BIN	That Operator Control/Chain Inputbins is set to On and that a chained inputbin is empty.	Refill the empty inputbin with the specified paper size.
RESETTING ACCOUNTING	The reset accounting operation is in process.	
TEST PRINT	A test print page is printing.	
TONER ABSENT	The toner cartridge is not installed.	Install a toner cartridge.
TONER LOW	The toner is low. There is enough toner to print about 100 pages from the point the message first appeared.	Replace the toner cartridge. Refer to chapter 2, "Consumables," for details.
TRANSPORT JAM	Media has jammed while passing through the engine.	Locate and remove the jam. See "Media Jams" on page 6-18.

Status Messages

This status message...	means...	do this...
WAITING FOR IDLE	An active job is in process. Access to the menu is not allowed until the job is finished.	Wait until the print job is finished and the printer goes idle.
WAITING ON INPUT END JOB?	The compiler is waiting on incoming data for the first job in the queue. The job may not have an end-of-job indicator and therefore cannot end. The message clears if more input arrives from the port or if you press the Cancel key. No other jobs can be printed until this job has ended.	Wait until the job is finished and the printer goes idle to access the configuration menu.
WARMING UP	The printer is warming up.	Wait until the IDLE message displays before printing.

Service Messages

When the printer requires service, operation stops and the message window displays `CALL FOR SERVICE` followed by the location of the problem and error number. Have this information available when you call for service.

- » **Note:** *A service message sometimes occurs as a result of an unusual combination of events, not because of an actual problem. When the printer stops and a service message displays in the message window, turn the printer off and back on. This often clears the service message indicator and printer operation resumes. Always try this before making a service call.*

Service calls should be placed to the vendor from whom you purchased the printer. If you cannot get service from your vendor, see appendix A, "QMS Customer Support," for contact information.

Call for Service Error Codes

The following table lists `Call for Service` error codes that could appear on the printer message window and their meanings.

Error Code	Error Description
1	General fuser malfunction
2	Fuser temperature low malfunction
3	Fuser temperature high malfunction
4	Fuser warm up malfunction
10	Main motor malfunction
11	Scanner motor malfunction
12	Outlet fan motor malfunction
13	Power supply fan motor malfunction
14	Controller fan motor malfunction
15	Outlet fan motor 2 malfunction
20	Beam detect malfunction
21	No VSYNC from controller malfunction
30	Duplex guide malfunction
40	MPT lifter malfunction

Testing PC-Printer Communication

HP-GL Error Codes and PCL Error Codes

The following tables list error codes that could appear on the printer message window when running the HP-GL or PCL emulation.

HP-GL Error Codes	Description
0	Not enough memory for job.
1	Too many transformations.
2	Math error.
3	Job aborted.
4	Instruction not recognized.
5	Wrong number of parameters.
6	Out of range parameter, or illegal character.
7	Not used.
8	Unknown character set.
9	Position overflow.
10	Buffer overflow.

PCL Error Codes	Description
0	Not enough memory for job.
1	State lost.
2	Math error.
3	Job aborted.
4	Out of memory for macros.
5	Disk full. Cannot store fonts.
6 - 13	Internal error 1 - 8.

Testing PC-Printer Communication

To test communication between your printer and your PC, first create a short file that ejects a page from the printer. Then send the file to the printer.

Creating the Test File

To create the test file, type the following commands at the DOS prompt:

```
copy con printest.ps↵
showpage↵
^D^Z↵
```

(All commands above except the DOS **copy** command are case sensitive and must be typed exactly as shown.) Showpage is a PostScript command that prints a blank page. The ↵ symbol means to press the Enter key. To produce the ^D and ^Z, press and hold down the Ctrl key while you type the appropriate letters (d and z). These characters signify the end of the file and must always be included.

Sending the Test File

Parallel Communication

- 1 To send the PRINTEST.PS file you just created to the printer, type**

```
print printest.ps↵
```

- 2 If you're prompted for the name of the list device, type**

```
lpt1↵
```

or type the name of the PC's parallel port to which the printer is connected (for example, lpt2 or lpt3).

- » **Note:** *If the computer has more than one parallel port, they're probably labeled. If not, check the computer documentation for the LPT port names.*
- 3 If the printer and PC are communicating, a blank page ejects from the printer.**

If a blank page doesn't eject and you typed the file correctly, you may want to check your AUTOEXEC.BAT file to see if LPT1 (the parallel port) is being directed to COM1 (the serial port):

Testing PC- Printer Communication

- a If the AUTOEXEC.BAT file contains the line

```
MODE LPT1:=COM1:
```

delete it.

- b Then type

```
MODE LPT1:,,P↵
```

The “P” represents infinite retry and it tells the PC to send print jobs until the printer accepts them.

- c Restart the PC and retry the communication test.

See chapter 6, “Troubleshooting,” of *Operation* and refer to your DOS documentation for more information.

Serial Communication

- » **Note:** *The serial interface is an option which must be purchased through your QMS vendor. See appendix A, “QMS Customer Support,” for a list of locations and telephone numbers.*

- 1 **To send the PRINTEST.PS file you just created to the printer, type**

```
print printest.ps↵
```

- 2 **If you're prompted for the name of the list device, type**

```
com1↵
```

or type the name of the PC's serial port to which the printer is connected (for example, com2 or com3).

- » **Note:** *If the PC has more than one serial port, they're probably labeled. If not, check the PC's documentation for the COM port names.*

3 If the printer and PC are communicating, a blank page ejects from the printer.

If a blank page doesn't eject and you typed the file correctly, you may want to check your AUTOEXEC.BAT file in DOS to make sure that the printer's serial port settings match those of the PC.

- a Look for a command line like this in your AUTOEXEC.BAT file:

```
MODE COM1:9600,N,8,1,P↵
```

In this example, the serial port settings are 9600 for baud rate, N (no) parity, 8 data bits, and 1 stop bit. The "P" stands for infinite retry.

» **Note:** *If the **mode** statement isn't in your AUTOEXEC.BAT file, you may temporarily set these parameters at the DOS prompt to continue this test by typing the **mode** statement as shown above. To make this setting permanent, you'll need to add this statement to your AUTOEXEC.BAT file.*

- b Restart the PC, and then check the start-up page, which prints when you turn on the printer (unless you disabled it). This tells you the current serial port settings for the printer.
- c If the serial settings (baud rate, parity, data bits, and stop bits) shown on the start-up page match those in your AUTOEXEC.BAT file, you need make no further changes. Go to the section "Special PC Concerns" later in this chapter.

If the printer's serial port settings are different from your PC's settings, use the printer control panel, as described in the following section, "Changing Serial Port Settings," to make them match.

Changing Serial Settings

Since your printer is configured at the factory for the most typical printing environments, the serial settings in your AUTOEXEC.BAT file and on the start-up page should be the same. However, if they differ,

Testing PC- Printer Communication

you must configure the printer to use the serial settings specified in the AUTOEXEC.BAT file.

Press the following control panel keys in the order shown:

Press this key...	to...	The message window reads...
Online	Take the printer off line (the Online indicator goes out.	IDLE
Menu	Access the configuration menu.	CONFIGURATION OPERATOR CONTROL
Next	Advance to the Administration menu.	CONFIGURATION ADMINISTRATION
Select	Access the Administration menu.	CONFIGURATION COMMUNICATIONS
Select	Access the Communications menu.	COMMUNICATIONS TIMEOUTS
Next	Advance to the Serial menu.	COMMUNICATIONS SERIAL
Select	Access the Serial menu.	SERIAL MODE
Next (one or more times)	Access the Baud Rate menu.	SERIAL BAUD RATE
Select	Access the Baud Rate menu.	BAUD RATE *9600
Next (one or more times)	Advance to the correct baud rate.	BAUD RATE #

Press this key...	to...	The message window reads...
Select	Select the displayed baud rate.	# IS SELECTED BAUD RATE

- » **Note:** *If you need to change other settings, press the Next key to access the appropriate menu option, then return to the point where you press the Select key to access the Administration menu and select the new settings.*

Online	Access the Save Changes option.	SAVE CHANGES? *NO
Next	Advance to the Yes option.	SAVE CHANGES? YES
Select	Save changes.	IDLE
Online	Put the printer back on line (the Ready indicator lights).	IDLE

Verifying the Serial Setting Changes

- 1 Turn the printer on and off again.**
- 2 Compare the serial port settings listed on the start-up page to those in your AUTOEXEC.BAT file.**
- 3 Try the communication test again.**

If a blank page ejects from the printer, the printer and the PC are communicating. Skip ahead to "PC Printing Software," below, to finish connecting the printer. If a blank page does not eject and you typed the file correctly, see chapter 6, "Troubleshooting," of the *Operation* guide, and refer to your DOS documentation for more information.

Printer Problem Checklist

This section contains a list of possible printer problems and solutions. If you have just installed your printer, be sure you have followed the steps in chapter 2, "Setting Up Your Printer," in the *Getting Started* guide.

If there is no display message, use the following steps to identify the source of your problem and to learn of possible solutions:

1 Does the printer power light come on?

YES - Go to number 2.

NO - Check the following:

- Is power supplied to the AC outlet?
- Is the power cord plugged securely into both the power outlet and the printer? Check the power cord connection.
- Is the printer power switch in the On position (pushed in)?
- Is the power outlet working?
- Does the line voltage from the power outlet match the printer's power requirements? See appendix B, "Technical Specifications," in your *Reference* guide.

2 Can you print a status page?

YES - Go to question 3.

NO - Check the following:

- Is the printer off line before you try to enter the Administration/Special Pages/Print Status menu? It should be.
- Does the cassette have paper? If it is out of paper, the PAPER OUT message displays and the Error indicator lights.
- Is the method of tray delivery configured correctly? See chapter 4, "Printer Configuration," in your *Reference* guide.

- Are all the printer covers closed securely?
 - Is there a media jam? If a paper jam message displays and the Error indicator lights, go to one of the following sections in this chapter on clearing a media jam.
- 3 Is the printer receiving data from the computer? If the Data indicator blinks after a file is sent, the printer is receiving the data. If not, check the following:**
- Is the printer on line? The online indicator should be on and the message window should display IDLE.
 - Has the emulation been changed from ESP to an emulation that doesn't match the file you are sending? See chapter 4, "Printer Configuration," in the *Reference* guide.
 - Print a status page from the control panel. If you are using the serial interface, is the baud rate (speed of data transmission) of the printer, the computer, and your software application the same? See chapter 4, "Printer Configuration," in the *Reference* guide.
 - If you still cannot identify the problem, contact your QMS vendor.
- 4 Is the printer printing codes or not printing at all when in ESP mode?**
- Reconfigure the port to the specific printer emulation of the file you are trying to print. See chapter 4, "Printer Configuration," in the *Reference* guide for instructions.
 - If a PostScript file prints PostScript emulation statements while in ESP mode, increase the ESP timeout. See chapter 4, "Printer Configuration," in your *Reference* guide to change it from the control panel.
 - If you continue to have problems with the ESP mode selecting the appropriate printer emulation, contact your QMS vendor.

Media Jams

5 If nothing prints at all, do an engine test print.

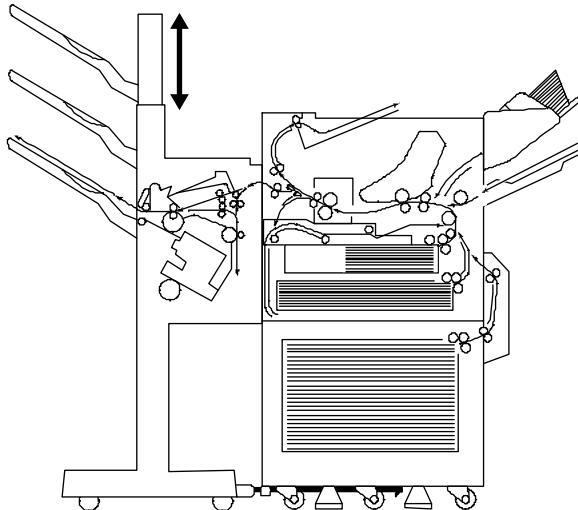
Use a paper clip that has been straightened and insert it gently into a small square access hole on the right side of the printer near the back. The printer should print a vertical line test print.

Media Jams

Media Path

Understanding how media travels inside the printer helps you better handle media jams.

After a sheet of media is fed manually or from a tray, cassette, or input bin, it travels to the toner cartridge where toner is attracted onto the media by means of the laser beam. Then, the media moves to the fixing assembly area where toner is fused to it. Finally, the media comes out from either the face-down or face-up tray, depending on the media delivery selected.



Automatic Jam Recovery

With most printers, if a jam occurs, you must remove the jammed media and then reprint the job. However, the QMS 2425/2425 *TURBO* Print System provides automatic jam recovery (when enabled through the Administration/Engine/Page Recovery menu). If a media jam occurs, remove the jammed media, and printing automatically resumes from the page the printer stopped at when the jam occurred.

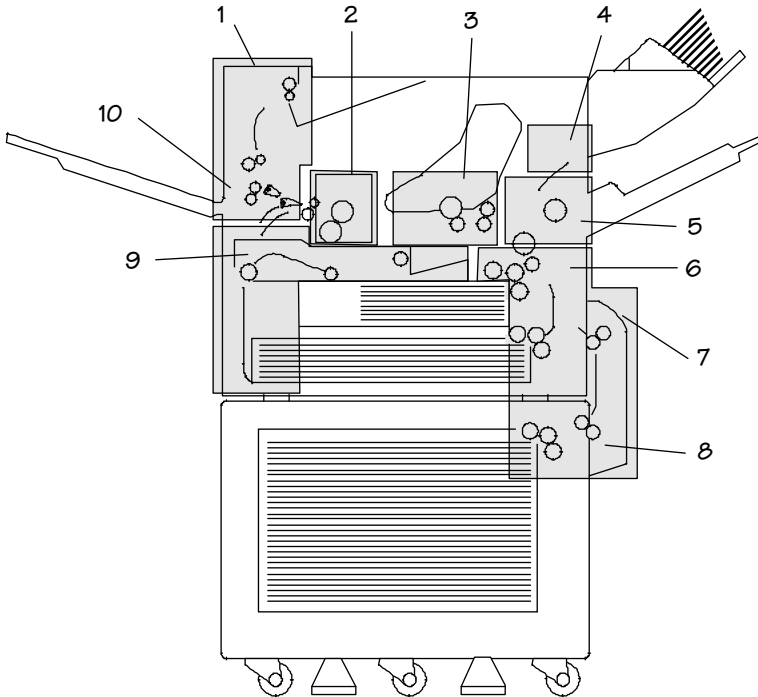
-
- ▲ **Caution:** *For automatic jam recovery to work, it is necessary to leave the printer turned on when you remove the jammed media. After the jam is cleared, open and close one of the doors (top, left, or right) before printing. Printing will not resume until you do this.*
-

Locating Media Jams

When a media jam occurs, a `PAPER JAM` message displays in the message window. Frequent jams in any area indicate that area should be checked, repaired, or cleaned. Repeated jams may also happen if you are using the wrong weight print media. (See the “Print Media” section of appendix B, “Technical Specifications,” in the *Reference*, for print media specifications.)

Media Jams

Print media jams can occur in the following areas:



- | | |
|----------------------------|--------------------------------|
| 1 Face-Down Tray | 6 Upper and Lower Cassette |
| 2 Left Cover - Fixing Area | 7 Paper Pick-Up Area |
| 3 Top Cover Area | 8 Optional Paper Deck |
| 4 Optional Envelope Feeder | 9 Optional Duplexing Unit Area |
| 5 Multipurpose Tray | 10 Face-Up Tray Area |

Check each of the indicated locations, and remove any jammed print media. Jams can occur in more than one location at a time, so be sure to check all the indicated locations.

- » **Note:** *This illustration shows the QMS 2425/2425 TURBO Print System without the Stackler. See the "Clearing Stackler Jams" section for Stackler jam locations.*

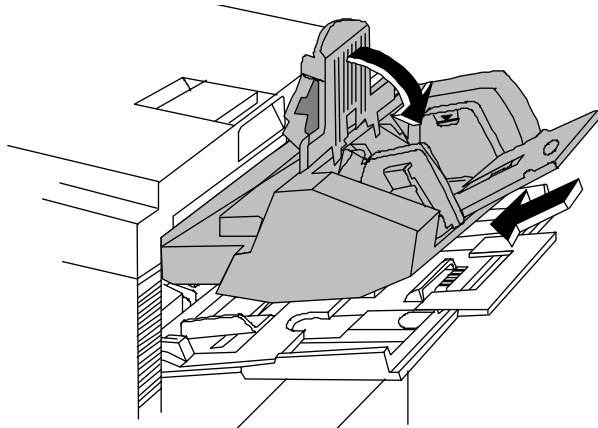
After checking for and removing media from the areas indicated, open and close one of the printer covers (top, left, or right) to clear the jam message. If all the jammed media has been removed, printing automatically restarts when the cover is closed. If printing does not restart or if the printer jams again, make sure that no pieces of media remain in the printer.

Clearing Envelope Feeder Area Jams

⚠ WARNING: *The fixing assembly and print delivery areas become extremely hot when the printer is used. Wait until the printer has completely cooled down before you touch these areas. Personal injury could result if you touch these areas while they are hot.*

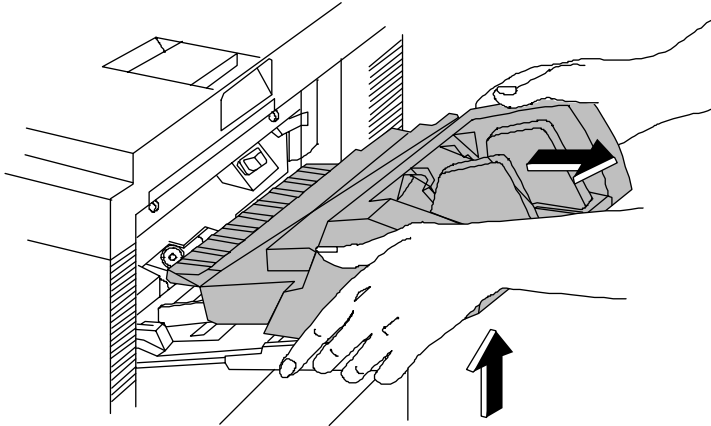
ACHTUNG! *Die Fixierereinheit sowie Teile der Papierausgabe werden im Betrieb extrem heiß. Warten sie, bis der Drucker vollständig abgekühlt ist, bevor Sie diese Teile berühren. Ein Berühren der heißen Teile kann zu Verletzungen führen*

- 1 Remove any envelopes from the envelope feeder.
- 2 Push in the extension tray and lower the envelope pressure plate.

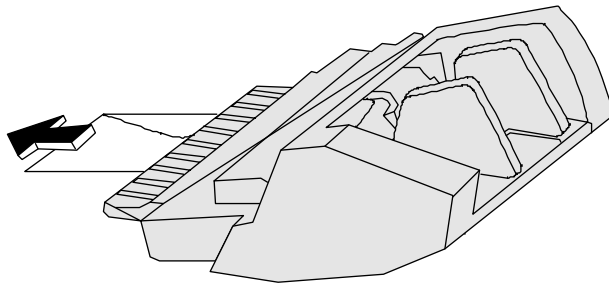


Media Jams

- 3 Slightly raise the end of the feeder, and remove it from the printer.

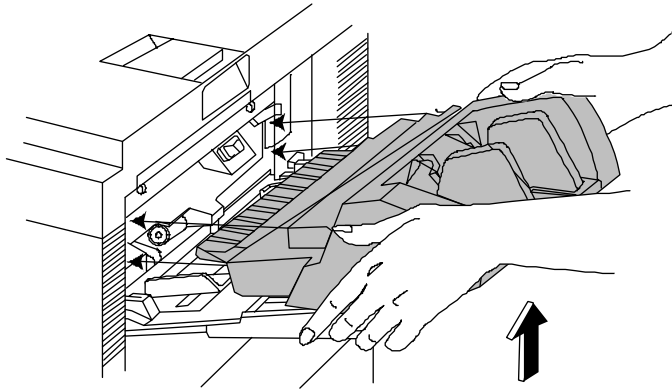


- 4 Reach into the access opening under the feeder to remove the jammed envelope.



- 5 Align the envelope feeder's tabs with the slots on the printer to reinstall it.

- 6 Slide the feeder in the printer slot as far as it will go.



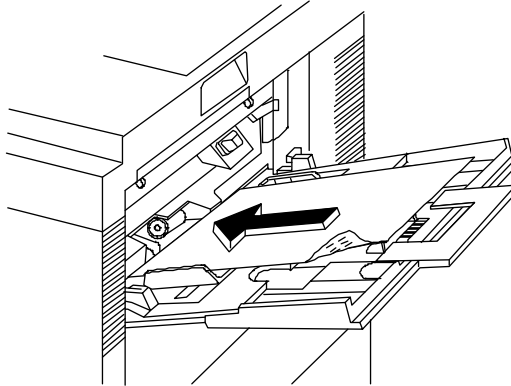
- 7 Open and close one of the printer's covers (top, left, or right) to remove the jam message and continue printing.

Clearing a Multipurpose Tray Area Jams

Follow these instructions to clear a media jam from the multipurpose tray area:

1 Remove any jammed media by pulling gently on it.

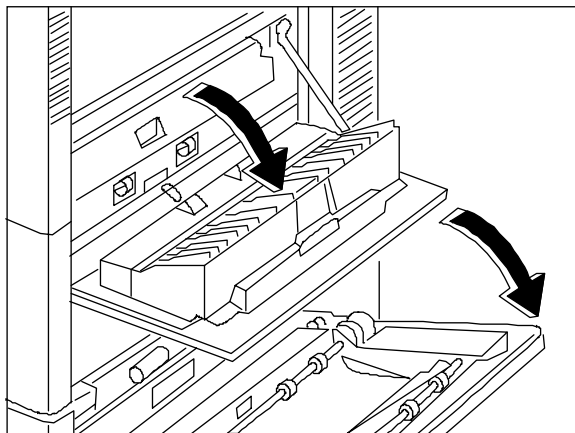
If the jammed media can't be pulled out easily, don't force it out. Open the top cover and follow the directions for removing a media jam in the "Clearing Top Cover Area Media Jams" section.



Clearing Paper Pick-up Area Jams

Follow these instructions to clear a media jam from the paper pick-up area:

- 1 If the optional paper deck is installed, first lower the paper pick-up cover. Then open the jam release cover.



- 2 Press down on the green lever, and remove the jammed media.
- 3 Close the jam release cover.
- 4 Close the paper pick-up cover if the optional paper deck is installed.

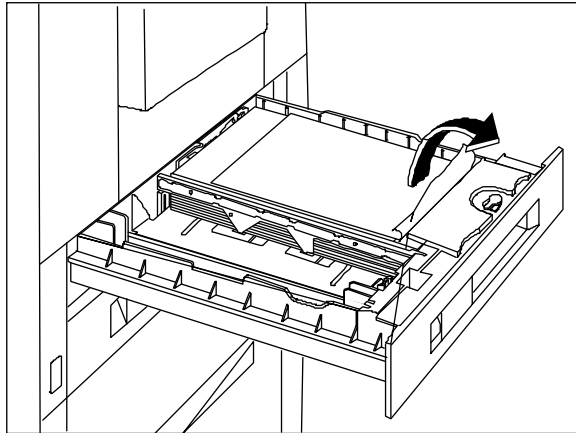
Clearing Upper and Lower Cassette Area Jams

Follow these instructions to clear a media jam from the upper and lower cassette area:

- 1 Determine which media cassette is currently being used and open it.

Media Jams

- 2 Pull out the cassette and gently remove any jammed media.



- 3 Adjust the remaining print media in the cassette.
- 4 Slide the cassette back in the printer.
- 5 Open and close one of the printer's covers (top, left, or right) to remove the jam message and continue printing.

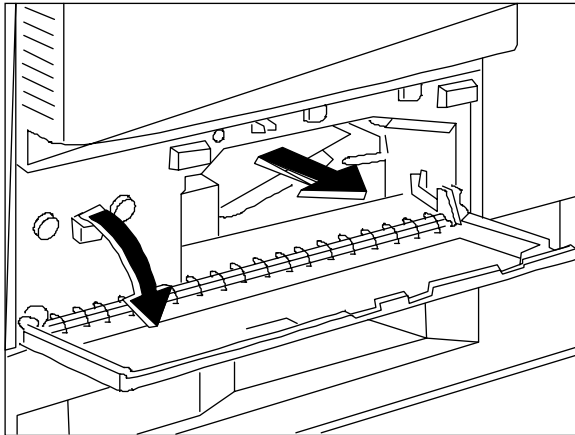
Clearing Duplexer Unit Area Jams

Follow these instructions to clear a media jam from the duplexer area, if the optional duplexer unit is installed.

WARNING: *The fixing assembly and print delivery areas become extremely hot when the printer is used. Wait until the printer has completely cooled down before you touch these areas. Personal injury could result if you touch these areas while they are hot.*

ACHTUNG! *Die Fixiereinheit sowie Teile der Papierausgabe werden im Betrieb extrem heiß. Warten sie, bis der Drucker vollständig abgekühlt ist, bevor Sie diese Teile berühren. Ein Berühren der heißen Teile kann zu Verletzungen führen.*

- 1 Lightly press the top center area of the duplexing unit jam release cover (on the front of the printer) to pop it open.

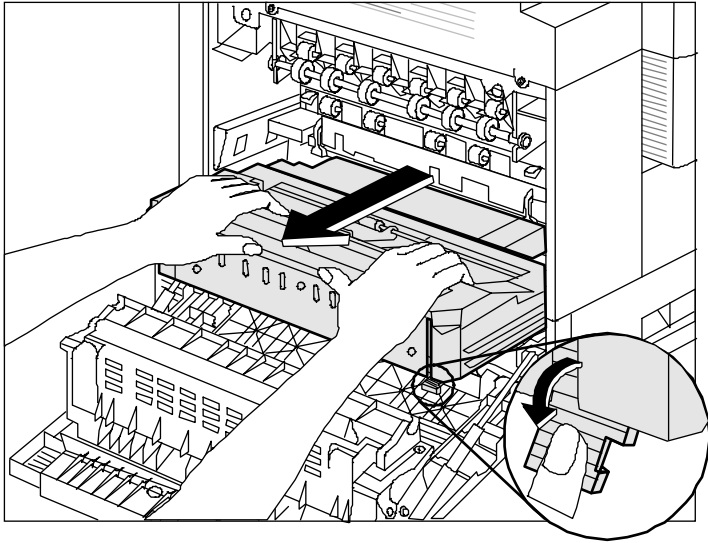


- 2 Open it and remove the jammed media.

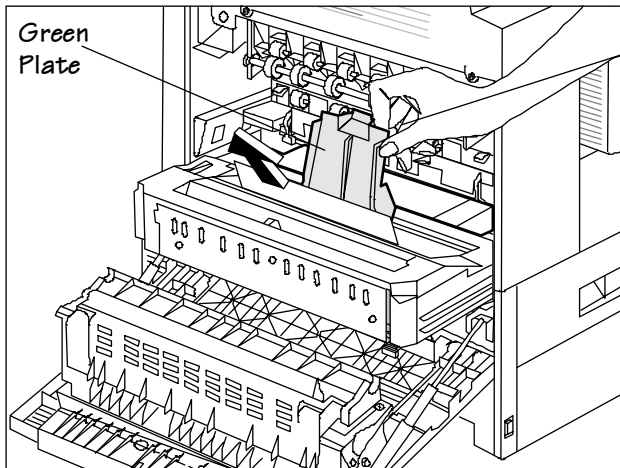
▲ **Caution:** Do not force the jammed media out. Otherwise, the media may tear and leave residual pieces in the duplexing unit.

- 3 Close the duplexing unit jam release door by pressing it until it clicks.
- 4 Open the left cover.

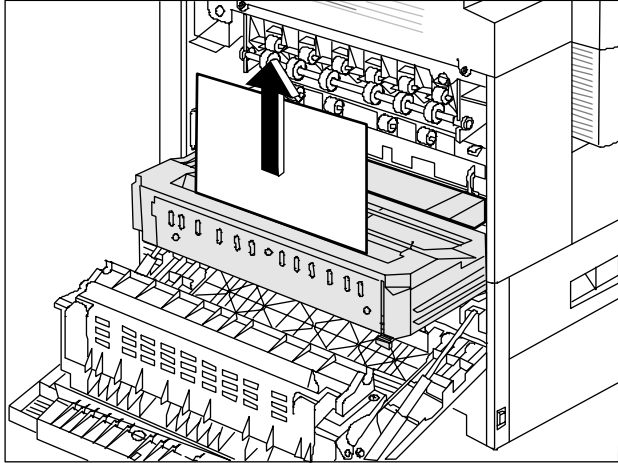
- 5 Press down the green tab to unlock the duplexing unit.**



- 6 Using both hands, pull the duplexer out until it can be moved to a vertical position.**
- 7 Lift the green plate and gently pull out the jammed paper.**



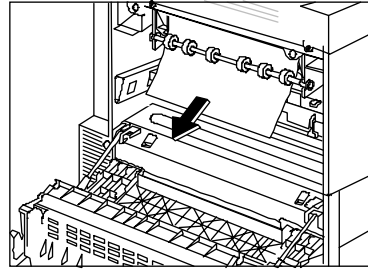
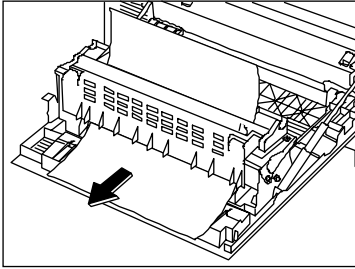
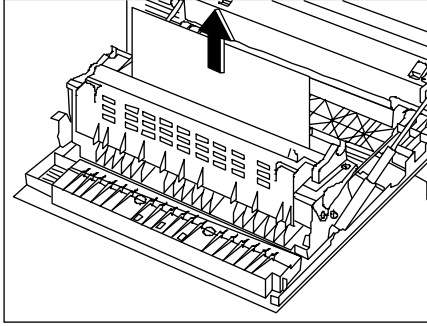
- 8 Return the green plate to its initial position.
- 9 If the paper is already inside the duplexing unit, gently pull the paper straight up to remove it.



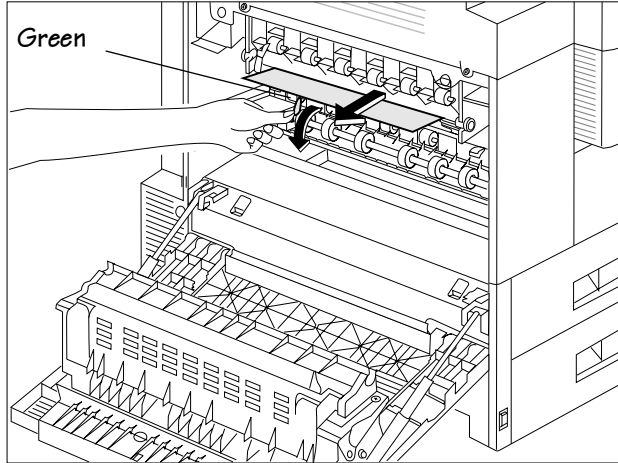
- 10 Reinstall the duplexer.
- 11 Close the door.

Clearing Left Cover and Fixing Area Jams

- 1 Gently remove any jammed paper from the following areas



- 2 If the media is still in the fixing assembly area, press down the green tab to open the door and pull the jammed media straight out.



- 3 Release the tab door to close it.
 - 4 Close the left cover.
- » **Note:** Remember to pull the media gently to avoid tearing or leaving scraps, which may cause another media jam.

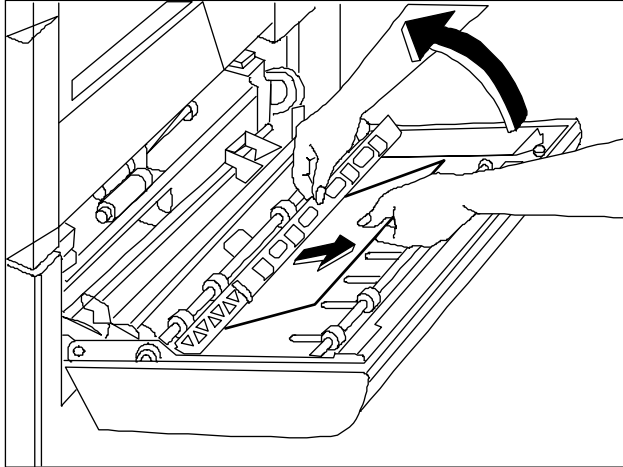
Clearing Optional Paper Deck Area Jams

Follow these instructions to clear a media jam from the paper deck area, if the optional paper deck is installed;

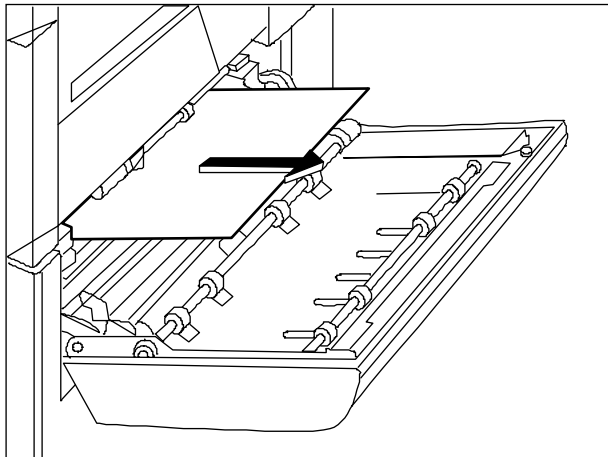
- 1 Open the paper pick-up cover to remove the paper jam.

Media Jams

- 2 Remove any paper from the paper pick-up cover by simply lifting the metal frame from the green label area and gently pulling out the paper.



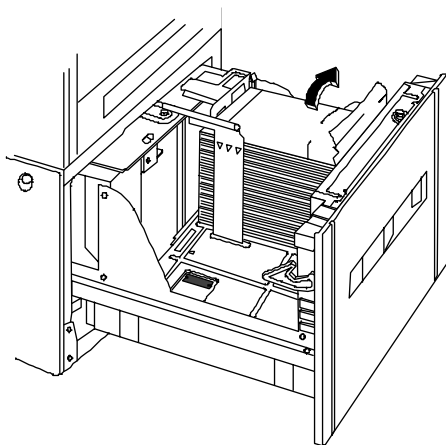
- 3 Remove any paper from the paper pick-up roller area.



- 4 Close the pick-up cover.

If you cannot remove the paper from this area, go on to step 5.

- 5 Open the paper deck and remove the jammed paper.

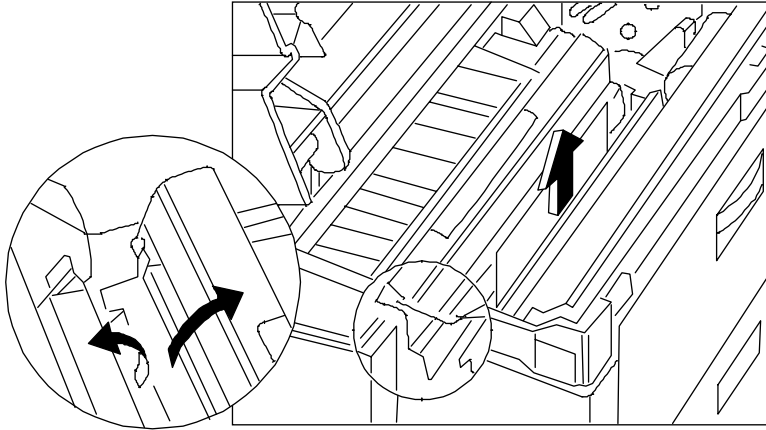


- 6 Close the paper deck.
- 7 Open and close one of the printer's covers (top, left, or right) to remove the jam message and continue printing.

Clearing Top Cover Area Jams

- » **Note:** Leaving print media in the multipurpose tray can cause the print media position to shift during removal of the jam. This may result in a media feed failure and another jam when printing is restarted.
- 1 Open the printer's top cover.
 - 2 Remove the toner cartridge.
- » **Note:** Place the toner cartridge in its protective bag to avoid exposure to direct light.

- 3 Open the transfer-guide lock-tray and lift the green lever to open the media access door.



WARNING: Be careful; the area around the fuser assembly is hot.

ACHTUNG! Verletzungsgefahr! Bei Betrieb wird die Umgebung der Fixiereinheit heiß.

- 4 Pull out the jammed media.



Caution: Do not lift the transfer-guide lock-tray beyond its upright position. This may damage the printer.

- 5 Close the media access door and place the green lever on the transfer-guide lock-tray in the lock position.
- 6 Replace the toner cartridge.
- 7 Close the printer's top cover.

Clearing Top Cover Fixing Area Jams

Follow these steps to clear a jam from the fixing unit area:

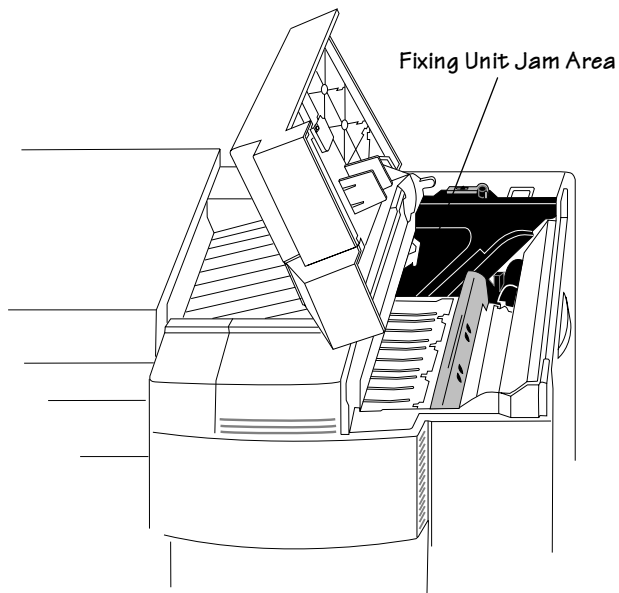
- 1 **Open the printer's top cover, remove the toner cartridge, and locate the fixing unit assembly.**



WARNING: Be careful; the area around the fuser assembly is hot.

ACHTUNG! Verletzungsgefahr! Bei Betrieb wird die Umgebung der Fixiereinheit heiß.

- 2 **If the media is jammed inside the fixing unit assembly, grasp the edge of the media and remove it.**



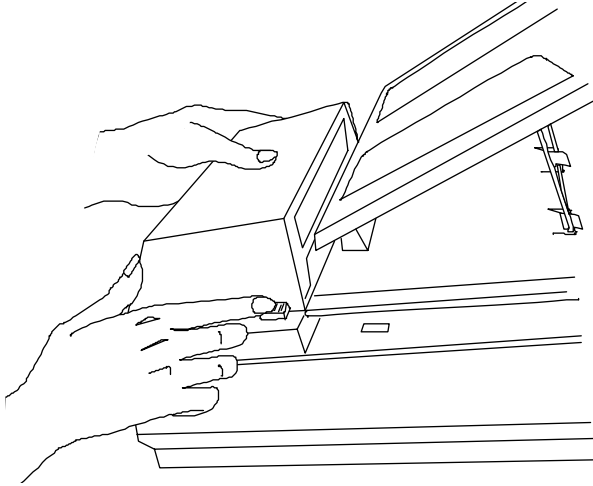
- 3 **If the jammed media has passed completely through the fuser assembly and is partially visible in the upper output bin, close the printer top cover, and then lift the media guide arm and pull out the media slowly.**

Clearing CrownCopy ADF Paper Jams

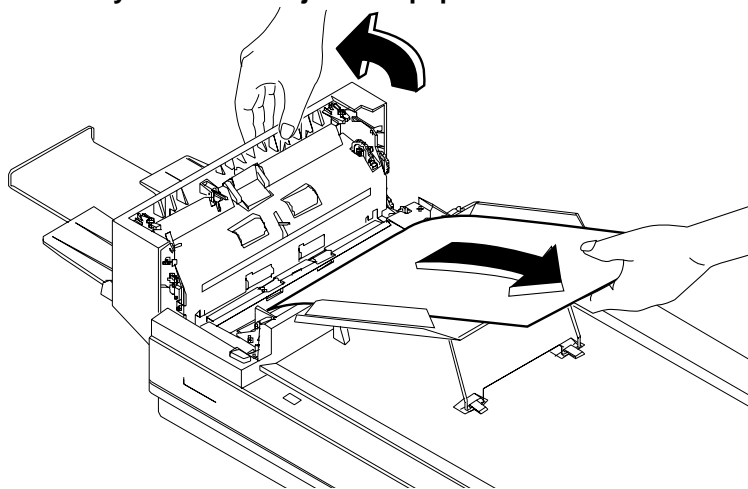
Use the following procedure to remove a paper jam in the automatic document feeder:

- 1 Push the button near the front left side of the scanner.**

The ADF module will lift slightly.



- 2 Lift the right side of the ADF module as far as possible, and then slowly removed the jammed paper.



- 3 Push the ADF module securely back into place.

Clearing Stackler Media Jams

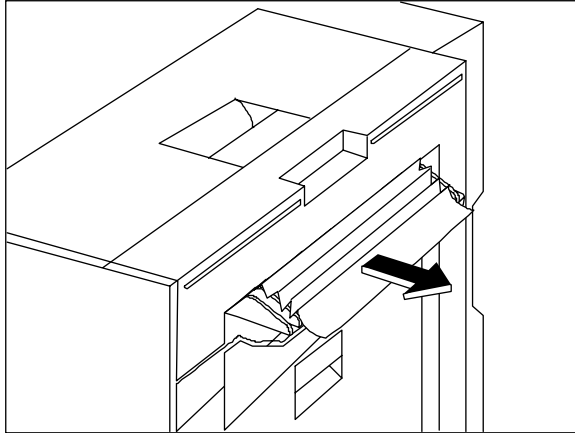
This section explains how to remove jammed media from the stackler. When using the stackler, always do the following:

- Open and close the top cover of the Stackler after clearing the media jam.
 - » **Note:** *This doesn't apply with jams in the reversing mechanism.*
 - Check the printer after clearing a stackler media jam.
-
- ▲ **Caution:** *Do not use excessive force when pulling jammed media from the Stackler, as this may tear the media leaving pieces inside the transport mechanism. Torn edges left inside the Stackler may cause further media jams.*
-

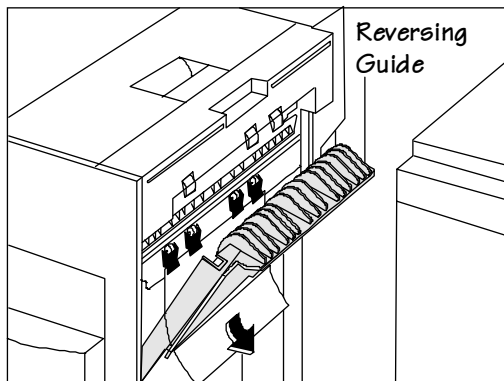
Media Jams

Media Jams in the Paper Feed Area

- 1 Pull the Stackler away from the printer.
- 2 Remove the jammed media.

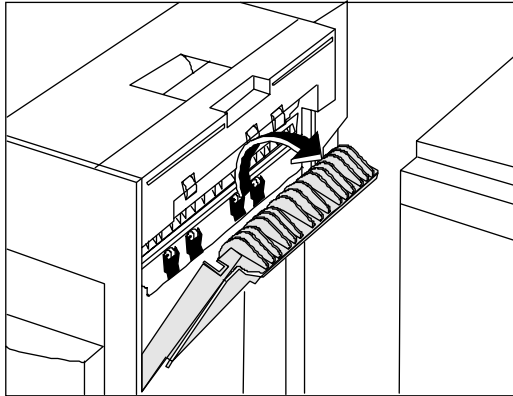


- 3 If you're unable to remove the jammed media, open the reversing guide and try again.



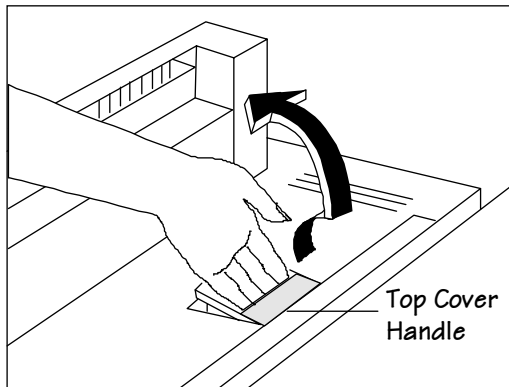
Paper Jams in the Reversing Area

- 1 Open the reversing guide and pull out the jammed media.



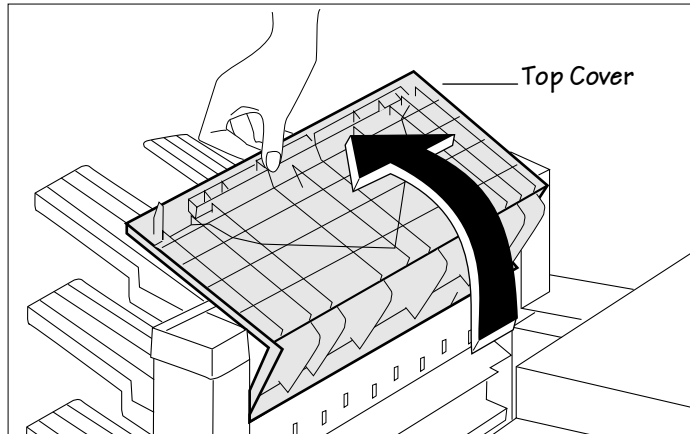
Media Jams in the Paper Transfer Area

- 1 Lift the top cover handle.

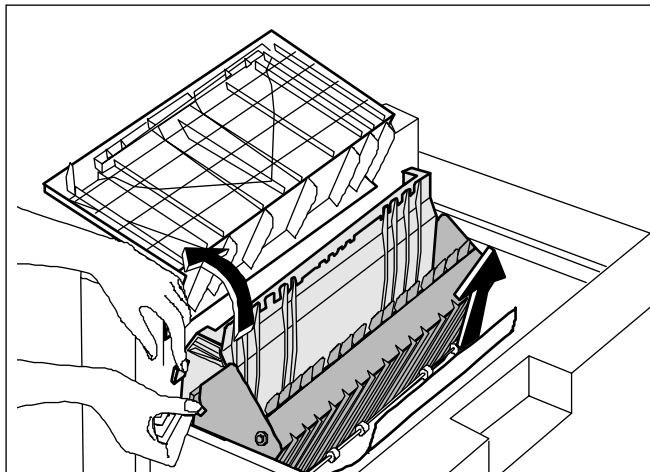


Media Jams

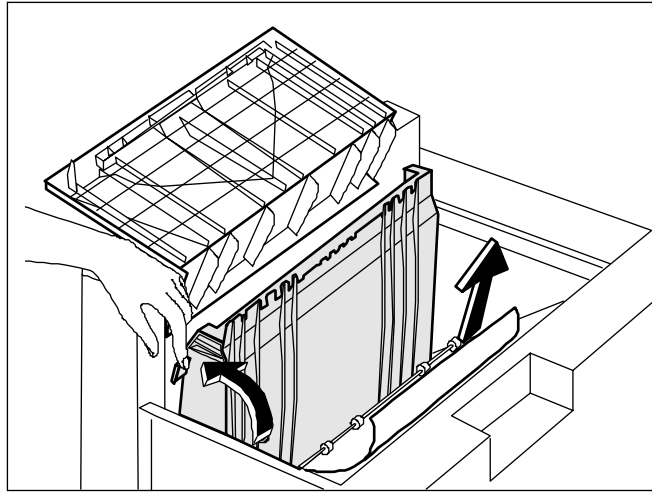
- 2 Open the hinged top cover gently.



- 3 If the paper is jammed by the face-up print, lift the upper guide and remove the jammed paper.



- 4 If the media is jammed by the face-down print, lift the lower guide and remove the jammed media.



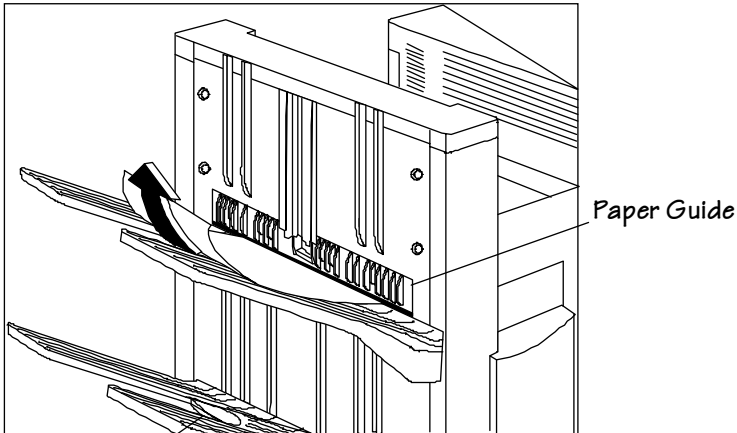
Caution: Lower the upper and/or lower guide after clearing the media jam.

Stapler Jams

Media Jams in the Paper Delivery Area

- 1 Remove the jammed media from the tray.

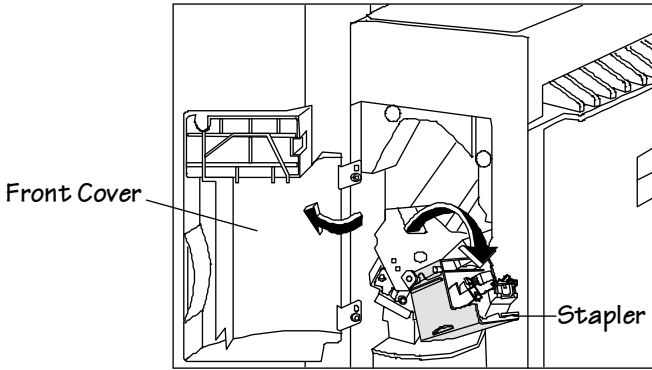
If the jammed media is difficult to remove, gently lift the paper guide.



Stapler Jams

-
- ▲ **Caution:** Remove the staple cartridge only when it has run out of staples. If it is removed, always leave half-used staples in the bottom of the staple cartridge.
-

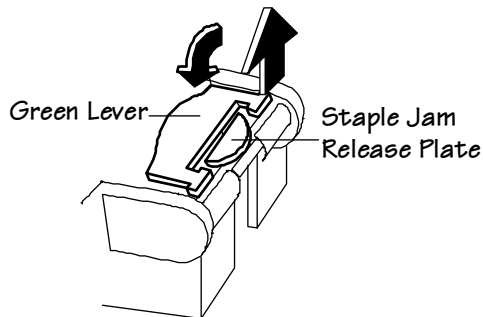
- 1 Open the front cover and pull down the stapler unit.



WARNING! Never insert your fingers all the way into the open stapler compartment, unless instructed to do so.

ACHTUNG! Stecken Sie niemals Ihre Finger in die offene Klammervorrichtung, es sei denn, Sie werden dazu aufgefordert.

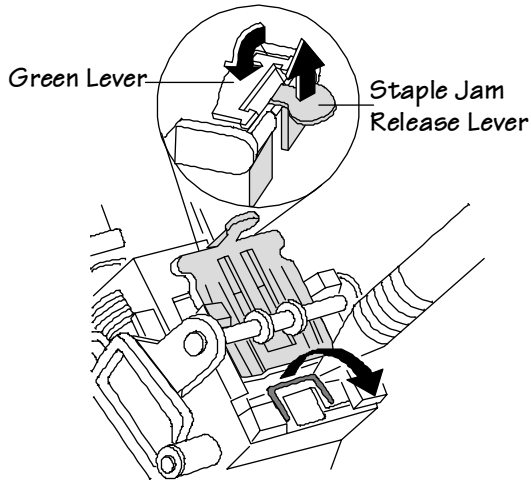
- 2 While holding down the green lever, lift up the staple jam release plate.



Stapler Jams

3 Using a pointed object, remove the jammed staples.

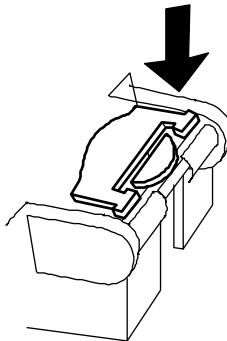
The jam is cleared when all bent or skewed staples have been removed.



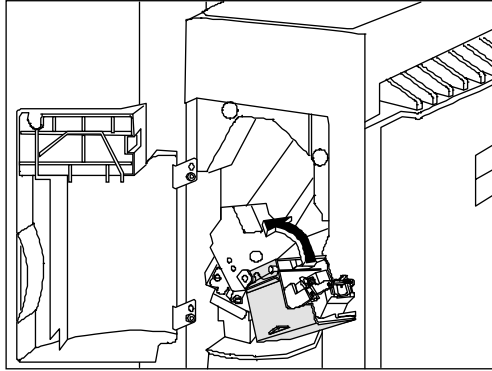
WARNING! Watch carefully for jammed staples as they may cause injury.

ACHTUNG! Achten Sie sorgfältig auf gestaute Heftklammern, denn diese können Verletzungen hervorrufen.

4 Push the release plate back down until the plate clicks to indicate that it is locked in place.

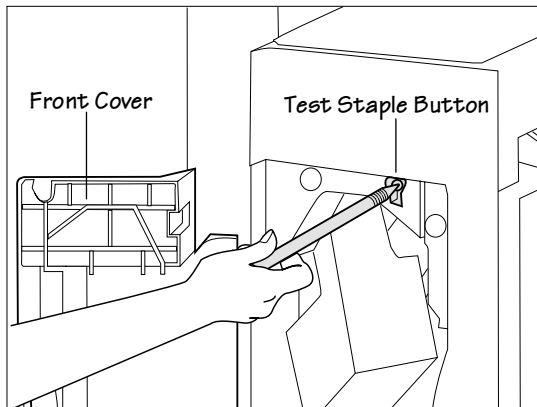


- 5 Pull the stapler unit back up to its original position.



- 6 Using the tip of a pointed object, such as a push pin or the tip of a pencil, press gently on the test staple button once to bring the staples to the ready position.

» **Note:** *Be careful. Too much pressure may damage the button.*



- 7 Close the front cover.

8 Printing and stapling will resume normally, unless the staples do not correctly advance.

If the staples are not advanced, any print job that was being stapled when the jam occurred or when the cartridge was replaced may not be stapled correctly. You can either continue printing the job, or you can print a test staple job to advance the staples to the proper staple position.

- Continue printing the job.

If you're printing a large job, you may want to allow the job to continue printing.

» **Note:** *Keep in mind that several copies of your stapled sets may not be stapled correctly. If the print engine detects that a test staple is needed, the next calibration page, status page, or startup page printed will serve as the test page. Up to 12 test staples will be placed along one side of the page.*

- Print a test staple job.

Press the Print Status key on the control panel, and select Yes. A standard or advanced status page prints. Up to 12 test staples will be placed along one side of the status page. The printer is now ready to resume normal operation.

Troubleshooting CrownCopy

Understanding the LEDs

The scanner has three LEDs—Power (amber), Ready (green), and Jam (red). Alone and in combination they indicate the scanner's status.

If these LEDs are . . .			they indicate. . .	Do this . . .
Power	Ready	Jam		
Off	Off	Off	Not ready to copy.	Ensure that the power cord is firmly plugged into the power supply and the scanner and that the scanner is turned on.
On	Off	Off	The scanner has been turned on.	Wait for the Ready LED to light.
On	On	Off	Ready to copy.	Copy.
On	On	On	Paper jam.	Remove the paper jam. See chapter 5, the "Removing ADF Paper Jams" section, of the <i>Options</i> manual.
On	Off	Blinking	ADF cover open.	See chapter 5, the "Removing a Paper Jam" section, of the <i>Options</i> manual for information on opening and closing the ADF cover. If necessary, turn the scanner off and on again.
On	Blinking	Off	Lamp failure—the lamp is either burnt out or too dark due to aging.	Replace the lamp. See chapter 5, the "Replacing the Lamp" section, of the <i>Options</i> manual for instructions.
On	Blinking	Blinking	A service problem.	Check that the shipping bracket was removed. If this does not solve your problem contact your vendor.

Solving Other Problems

Symptom	Solution
Documents don't feed smoothly into the ADF.	■ Clean the ADF (see chapter 5, the "Cleaning the Automatic Document Feeder" section, of the <i>Options</i> manual).
Edges of the copy are cut off	■ Make sure you're centering documents at the top of the scanner glass and that the scan size setting "Scan Size" of the <i>Options</i> manual) is correct. Also keep in mind that the printer's maximum imageable area is 18.16" x 10.66"/207.43 x 270.93 mm for letter-size media and 7.93" x 11.36"/201.46 x 288.54 mm for A4.
Image quality of copies is not optimal.	■ Clean the scanner glass: dampen a lint-free cloth with alcohol or a mild detergent and wipe the glass clean. ■ Clean the ADF (see chapter 5, the "Cleaning the Automatic Document Feeder" section, of the <i>Options</i> manual). ■ If you're scanning at 150 dpi, some printed materials, such as magazines, cause moiré patterns. To remove these patterns, change the scan resolution to 200 or 300 dpi (choose Copier/Copy Mode/Custom Gray, and then Copier/Copy Mode/Custom Config/Scan Resolution/200 or 300).
Ready and Jam LED's are blinking	■ The scanner has been turned on before the shipping bracket was removed. Use the instructions in chapter 5, the "Installing CrownCopy" section, of the <i>Options</i> manual for removing the shipping bracket.
Scanner lamp flicker, is dim, or fails to come on	■ The scanner lamp is failing or has failed and needs to be replaced. (See chapter 5, the "Replacing the Lamp" section, of the <i>Options</i> manual for instructions on how to change the lamp.)
Several pages feed into the ADF at the same time	■ Clean the ADF (see chapter 5, the "Cleaning the Automatic Document Feeder" section, of the <i>Options</i> manual).

Control Panel Problems

Data Indicator Stays Lit

If the printer has warmed up and the Data indicator stays on, two problems may exist:

- If you are downloading additional typefaces, too many can overload the printer's memory, causing the printer to reset and lose information previously downloaded to RAM. Make sure you have enough printer memory.
- On a LocalTalk network, Macintosh computers sometimes interfere with each other. If this happens often, reinstall the LaserWriter and Laser Prep files, which reset the printer. If neither of these is the problem, place a service call to your QMS vendor.

No Advanced Status Page

If your printer prints a standard status page even though you've configured the printer in the Administration/Special Pages/Status Page Type menu to print an advanced status page, your printer probably doesn't have enough free memory available. To print an advanced status page you may need to reduce the amount of memory assigned to one or more of the memory clients or add more memory (see the "Memory" section in chapter 5, "Additional Technical Information," of the *Reference* guide for information about memory clients).

No Start-up Page

If the Ready indicator is on, but no start-up page prints, check the following:

1 Has the start-up page been disabled?

Use the control panel to make sure the start-up page is on.

Control Panel Problems

- 2 Turn the printer off. From a cold start, the printer takes approximately 1 to 2 minutes to warm up.**

Be sure you wait long enough for a start-up page before suspecting a problem.

- 3 Check to be sure the paper cassettes are loaded with paper, in place and secure.**
- 4 Open the top cover of the printer and check for a media jam.**
- 5 Make sure a toner cartridge is installed.**

If you still have not solved the problem, you need to call your QMS vendor for help. Go to the last section of this chapter, "Placing a Service Call."

Paper Jam Message Stays On

If a PAPER JAM message stays on, open the printer and clear the jam. If the message is still there, try opening and closing the top of the printer again. See "Media Jams" on page 6-18 in this chapter for more information.

Printer Resets

Occasionally, Macintosh applications interfere with each other. Applications send a printer prep file to the printer at the beginning of each document. Other prep files cannot be sent without resetting the printer. Monitor your activities to see if there is a correlation between your use of a certain application and the printer resetting. If so, contact the application developer.

Downloading too many typefaces can overload the printer memory and cause the printer to reset to default. Additional memory (RAM), which can be used for font storage, is available and easily installed. Contact your QMS vendor for information on RAM upgrades. See chapter 2, "Memory and Systems Software," in your *Options* guide.

If the printer resets in other circumstances, you should call your QMS vendor for service.

PostScript Errors

If your printer is having trouble printing when using PostScript emulation, you should turn on the Error Handler in the control panel menu. Error Handler is a diagnostic tool that identifies PostScript errors encountered during a print job.

Menu	Administration/Startup Options/Do Error Handler
Choices	Yes—Load the Error Handler. No—Don't load the Error Handler.
Default	No
Notes	Refer to the <i>PostScript Language Reference Manual</i> (Adobe Systems Incorporated, Reading, PA: Addison-Wesley, 1990, ISBN 0-201-18127-4) for information on PostScript errors. You may also want to turn on the header page to verify the proper emulation.

Windows Driver Problems

Printer Description Files

If you experience problems either when installing or using printer description files on a PC, see “Notes on Installing Printer Description Files” on page 6-11, in chapter 3, “Connecting to a PC,” of *Getting Started*.

CrownNet Problems

If you have trouble installing and setting up your QMS CrownNet interface, check the following:

- If the printer requires a network interface card, is it correctly installed in the printer?
- Is the printer connected to the network?
- Is the printer plugged in, turned on, and correctly configured?
- Do the printer start-up and status pages list the interface? Is the configuration information correct?
- Is the interface enabled?
- Is the appropriate protocol (or protocols) enabled?
- Are all printer and protocol addresses configured correctly?

Output Problems

600x600, 1200x1200 dpi Printing Unavailable

- The amount of RAM installed in your printer governs which resolutions can be used with each media size. If you purchased a QMS 2425/2425 *TURBO* Print System base model with
 - 8 MB RAM, 600x600 is available with letter/A4 media sizes for simplex printing on the QMS 2425/2425 *TURBO* base model.
- » **Note:** *The 1200x1200 dpi resolution is only available with the optional Multi-Res daughterboard, and additional memory.*

- If you purchased a QMS 2425Ex with 24 MB RAM or a 2425 *TURBO* Ex with 32 MB RAM, 600x600 is available with all media sizes for simplex and duplex printing.
- » **Note:** *The 1200x1200 dpi resolution is only available with the optional Multi-Res daughterboard and additional memory.*

See the “High-Resolution Printing” section in chapter 3, “Advanced Printing Features,” for specific requirements. Then check a start-up page to make sure the printer has enough RAM installed. Also, see the *Options* guide for more information on memory upgrades (SIMMs—single-in-line memory modules).

- If you have enough RAM installed, and you have configured the printer from the control panel to print at 600x600 or 1200x1200 dpi resolution (Administration/Engine/Def Resolution menu) but the printer continues printing at a lower resolution, you may need additional memory allocated to the frame buffer.

To allocate the correct amount of memory, use the Memory/K Mem Framebuff menu. See chapter 4, “Printer Configuration,” in the *Reference* for more information.

Blank Pages

If a blank start-up page ejects or blank pages come out during a printing job, try the following:

- 1 Check the toner cartridge.**
The image does not print if the cartridge is empty.
- 2 Be sure you have broken the tab on the side of the toner cartridge and removed the sealing tape.**
- 3 If the toner cartridge is not empty, the sealing tape has been removed, and blank pages are ejecting, take the cartridge out, roll it from side to side, and reinstall the cartridge in the printer.**
- 4 If these solutions do not work, contact your QMS vendor to purchase another toner cartridge.**

Not All Pages Print

If the printer stops printing in the middle of your file, try the following:

1 Check your cable.

You could have the wrong kind of cable, or your printer may not be configured for the correct cable and port.

2 Make sure no one pressed the Cancel key while your job was printing.

3 Check the message window to see if the cassette you are using needs more media.

Printer Will Not Duplex

If the error message `DUPLXER ABSENT` appears in the message window, make sure you have the optional duplexer correctly installed. See the *Options* guide for information on installing the duplexer. If you have correctly installed the duplexing unit and configured the printer from the front panel to duplex (Operator Control/Def.Duplex), but the printer continues printing simplex, you may need additional memory allocated to the frame buffer. See chapter 3, "Advanced Printing Features," in this guide for additional information on memory required for duplexing.

Disk Problems

IDE Internal Hard Disk Not On Line

- If your printer doesn't have enough memory, then you need to enable disk swapping. See chapter 4, "Printer Configuration," in the *Reference* guide for information on how to enable this option through the Administration/Memory/Enable Disk Swap menu.

External SCSI Hard Disk Not On Line

- If `DISK ONLINE` does not appear on the start-up or status page, check the hard disk cable connections to the hard disk and to the SCSI interface port on the back of the printer. (See your hard disk documentation for more information.)
- Is the hard disk turned on? Check that the Power indicator is on.
- Did you turn on the hard disk before you turned on the printer. Always turn the hard disk on first, and then turn the printer on.
- Is the SCSI ID set for one of the reserved positions? Do not use the reserved positions 7, 8, and 9. Make sure each device on the SCSI chain has a unique address.
- Did you terminate a hard disk in the middle of the chain? There should be only one terminated disk in the chain, and it should physically be the last disk in the chain. (See your hard disk instructions for more information.)

Kanji Option Kit Problems

Use the information in this section to locate and solve problems that may arise when installing and using this Kanji SIMM or Kanji external kit.

Can't Download Kanji Fonts

- Are you attempting to download Kanji TrueType fonts using the PS Executive Series Utilities?

This utility cannot be used to download Kanji TrueType fonts. See your Kanji TrueType font software documentation for information on how to download these fonts.

Kanji Option Kit Problems

- Did the printer run out of memory while downloading Kanji fonts?

If you experience memory problems when downloading Kanji fonts, then you can do one of the following to increase printer memory:

- Add 4 MB more printer memory.
- Decrease the number of fonts that you are downloading. When downloading a large number of fonts, packet them in smaller groups for downloading. (For example, instead of downloading four fonts at one time, download two).
- Are you getting the following message:

```
The Resolution of this PostScript Device Exceeds  
the Maximum Resolution Specified in the Licens-  
ing Agreement.
```

It is possible to get this message when attempting to download Adobe Type Library or Morisawa Type Library Kanji fonts without first downloading the JFontPrep file.

If you get this message, you must download the JFontPrep file.

Can't Access Kanji Fonts

- Does the start-up page indicate that the QMS Kanji external hard disk 1 is on line?

When this disk is on line, Japanese fonts print in the lower half of the start-up page. If not, check that the disk is installed correctly and that the disk is not damaged.

- Does your application support Japanese fonts?

You should be able to select these fonts if the application supports them.

- Did you inadvertently initialize or reformat the internal Kanji IDE hard disk?

If so, contact your QMS vendor. See appendix A, "QMS Customer Support," for product sales and service information.

- Did you correctly configure the printer?

See chapter 4, “Software,” of the *Options* manual for complete printer configuration information.

Can't Access the Kanji File Through Your Application

- If you are using Windows, ensure that the Japanese version of the Windows driver is installed.

Double-click the Windows control panel icon, double-click Printers, choose your Windows driver, click Setup, and then click About. Check that you are using the QMS Windows 3.1J driver.

- If you are using a Macintosh, ensure that the system is KanjiTalk, and the appropriate Kanji screen fonts are installed.

The two Morisawa screen fonts are included on your Macintosh system disk. The four Typebank screen fonts are included on the Macintosh bitmapped screen fonts disk that comes with the Kanji Option Kit.

Print Quality Problems

Print quality problems are those related to the appearance of the pages you print. Print quality problems include white lines on the page, uneven blacks, and other print distortions.

If you are having problems with the quality of your printed pages, try this quick-check procedure:

- 1 Check that you are using the correct type media.**

See appendix B, “Technical Specifications,” in the *Reference*, for media specifications.

Print Quality Problems

2 Check that there is enough toner in the printer.

If the `TONER LOW` message appears in the message window, remove the toner cartridge and gently rock it from side to side to redistribute the toner. Then reinsert the cartridge and try printing again.

3 If the message remains on, replace the toner cartridge.

4 Place a service call to your QMS vendor.

Paper Jams Always Occur

1 Check that the media does not exceed the media limit mark.

Make sure that the stack does not exceed the paper limit mark on the media cassette.

2 Check that the paper stack is correctly aligned.

Make sure that the stack is correctly aligned in the media cassette or in the multipurpose tray.

3 Check that the correct paper type is used.

See appendix B, "Technical Specifications," in the *Reference*, for media specifications.

4 Check the printer for residual jammed media.

5 Remove any jammed media remaining inside the printer by checking the locations in "Media Path" on page 6-17.

Printer Will Not Print 600 dpi

If you have set the printer from the configuration menu to print at 600 dpi resolution but the printer continues printing 300 dpi, you may need additional memory allocated to the frame buffer. See the "Memory" section in chapter 5, "Additional Technical Information," in your *Reference* guide for additional information on memory configuration.

Image Defects

The following list includes several image defects with possible solutions. Try the solutions in the sequence given. If the solutions listed don't solve the problem, place a service call to your QMS vendor. See the next section in this chapter, "Placing a Service Call."

White or Light Lines

- 1 Remove the toner cartridge and gently rock it from side to side as you would before installing a new cartridge.**

This redistributes toner inside the cartridge. Reinstall the cartridge.

- 2 If step 1 does not solve the problem, install a new toner cartridge.**

Light Image (Entire Page)

- 1 Make sure you pulled the tab from the toner cartridge.**
- 2 Increase the print density by adjusting the print density through the Administration/Engine configuration menu.**
- 3 Make sure that the Conserve Toner option is disabled under the Administration/Engine/Print Quality configuration menu.**
- 4 Remove the toner cartridge and gently rock it from side to side as you would when installing a new cartridge.**

This redistributes toner inside the cartridge. Then, reinstall the cartridge.

- 5 If steps 1, 2, 3, and 4 do not solve the problem, install a new cartridge.**

Dark Image (Entire Page)

- 1 Decrease print density by adjusting the print density through the Administration/Engine menu on the configuration panel.**

Placing a Service Call

- 2 Remove the toner cartridge and gently rock it from side to side as you would when installing a new cartridge.**

This redistributes toner inside the cartridge. Then, reinstall the cartridge.

- 3 If steps 1 and 2 do not solve the problem, install a new toner cartridge.**

Stain Along the Edge of the Page

Install a new toner cartridge.

Stains on the Back of the Page

The media path may be dirty. Clean the media path area. See chapter 4, "Printer Care," for more information.

Image Easily Smears when Rubbed

Place a service call to your QMS vendor. See appendix A, "QMS Customer Support," for sales and support information.

Placing a Service Call

If you have a problem you cannot resolve, contact your QMS vendor. Your QMS vendor is best equipped to immediately handle any problem you may encounter.

If you have technical questions your vendor is unable to answer, you can call or fax questions to QMS Customer Technical Assurance (See Appendix A, "QMS Customer Support," for information on contacting QMS Customer Technical Assurance). If you've determined your printer needs to be examined by a QMS service technician, contact QMS National Service for work inside the US, or one of the QMS international offices for work outside of the US. (National and international contacts are listed in appendix A, "QMS Customer Support.")

Before calling, be sure you have the answers to these questions handy to help our technicians serve you more quickly:

- 1 What is your printer model and serial number?**
- 2 What kind of host computer do you have?**
- 3 What operating system do you have and what version?**
- 4 What interface are you using and what protocol?**
- 5 What application are you using?**
- 6 What is the emulation of the file you're trying to print? In what emulation mode is the port?**
- 7 What is the firmware revision number for your printer? (It is listed on both the status and start-up pages.)**
- 8 If you can print, have a status page available.**

Your service representative needs to know these things prior to helping you.



7

CrownView Printer Web Page

In This Chapter . . .

- “Setting up the Printer Web Page” on page 7-3
 - “Setting Up Your Browser Software” on page 7-3
 - “Printer Home Page” on page 7-9
 - “Web Page Help System” on page 7-29
-

Introduction

QMS CrownView is a printer-based application using the World Wide Web portion of the Internet as a framework for the QMS 2425/2425 *TURBO* Print System. This feature allows you to monitor printer consumables as well as access information that is not normally available only by printing a status page.

Inside your new QMS printer resides an HTTP (Hyper-Text Transfer Protocol) based web page that can be accessed from the most common web-browser software, Netscape Navigator and Microsoft Internet Explorer. This web page gives you access to the most frequently accessed printer configurations and gives you instant access to printer status. Anyone on your company intranet can access the QMS printer through their web-browser software.

- » **Note:** *The sample windows and dialog boxes shown in this chapter are as they appear in Netscape Navigator and Microsoft Internet Explorer, and coincide with the step-by-step instructions provided.*

This chapter provides you with details on

- Setting up and using the web page
- The different types of pages in the printer
- Accessing the QMS web site and performance support

Setting up the Printer Web Page

Setting up the printer web page to run on your intranet involves two basic steps:

- Assigning a name to your printer
- Setting up the “no proxy” preferences in your browser software

Assigning a Printer Name

The printer web page can be accessed only through the assigned name of the printer or the IP address. It is more convenient for you to use a name than the address. The default name for the printer is usually the model number of the printer, for example, QMS 2425/2425 *TURBO* Print System. Change the default name to one that is more easily remembered and typed.

You can change the printer name through the Administration/Communications/Networkx/CrownNet/NetWare/Printer Name menu or the Administration/Communications/Networkx/CrownNet/LanManager/Printer Name menu. (See the *QMS CrownNet Setup Guide* for more information.)

Setting Up Your Browser Software

Since your printer will reside on your intranet and will not be accessible beyond the firewall of your network, you must set up the proper “preferences” in your browser software. Your printer name or IP address must be added to the “no proxy” list in the preferences dialog box of the browser.

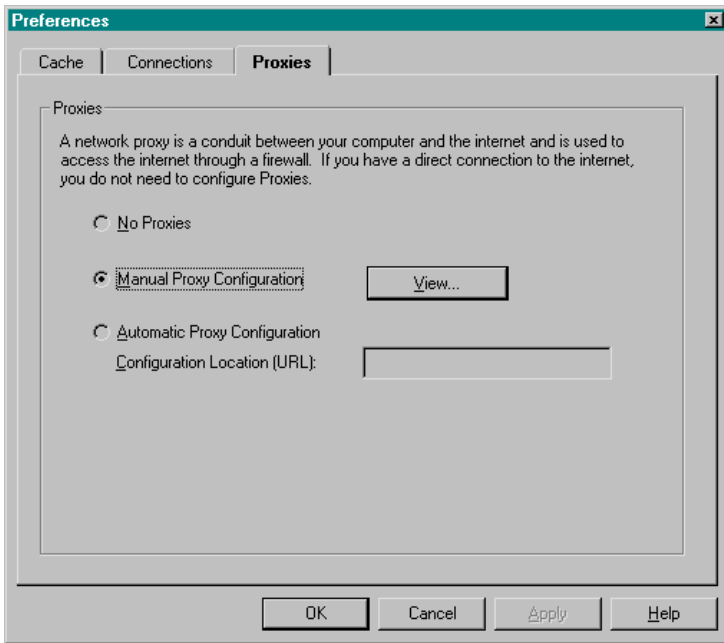
- » **Note:** *You need to do this procedure only once.*

For Netscape Navigator

- 1 **Start your web browser.**
- 2 **Access the Options menu and choose Network Preferences.**

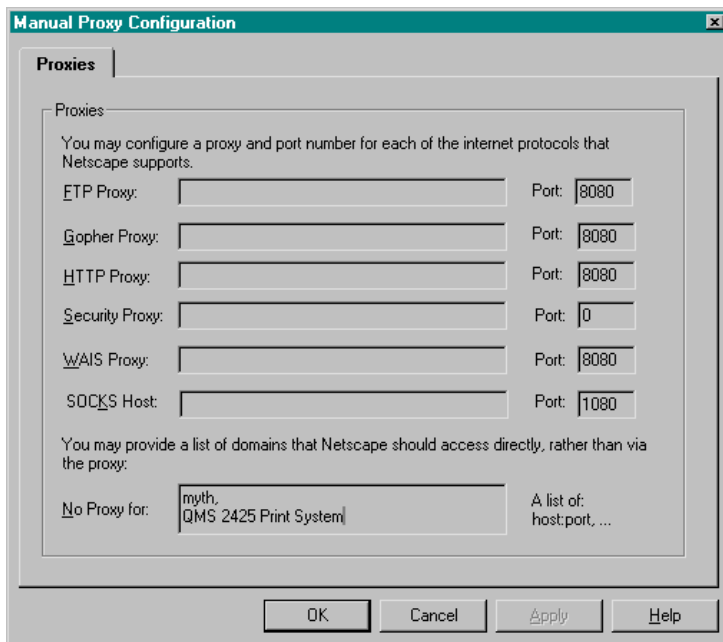
Setting up the Printer Web Page

3 Select the Proxies tab in the dialog box.



4 Select the Manual Proxy Configuration radio button and press the View... button.

- 5 In the No Proxy For: text box, type a comma after the last entry and then type the printer name or the IP address of your QMS 2425/2425 TURBO.**

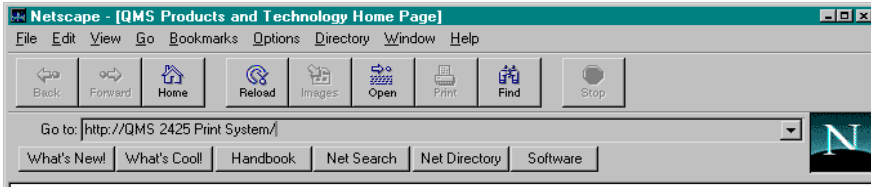


- » **Note:** *The printer name is entered in the network protocol menu that you are using. The default name is the model number of the printer. See your CrownNet documentation for more information on naming your printer.*

- 6 Choose OK.**

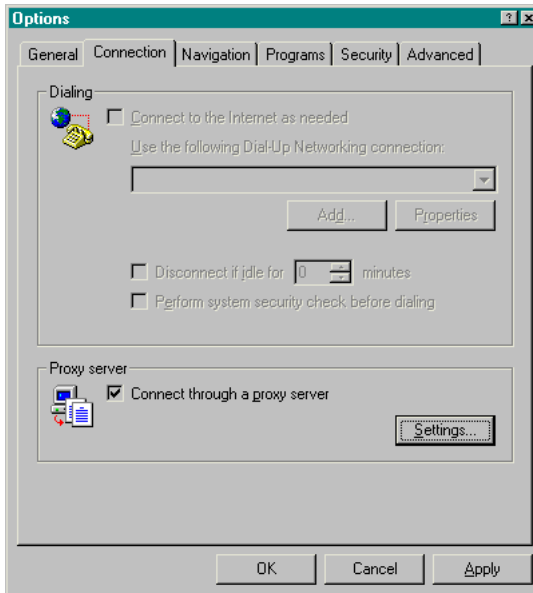
Setting up the Printer Web Page

- 7 Enter the printer name or IP address in the Go to: URL address box to access the printer home page.



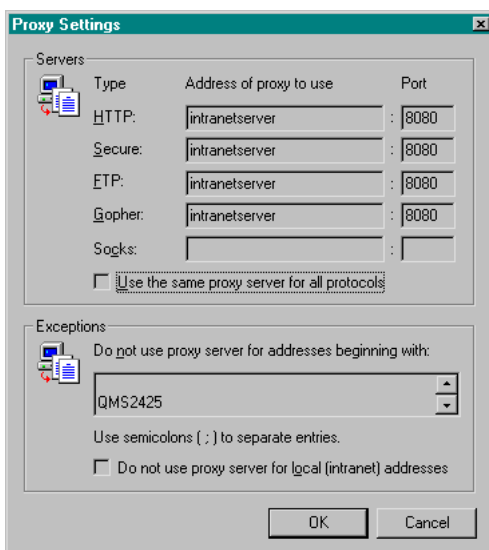
For Internet Explorer

- 1 Start your web browser.
- 2 Access the View menu and choose Options.
- 3 Select the Connection tab on the dialog box.



Setting up the Printer Web Page

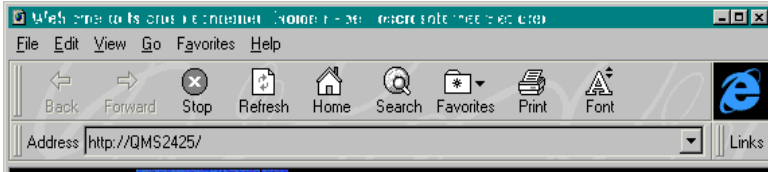
- 4 Click the **Settings** button to display the **Proxy Settings** dialog box.
 - 5 In the **Exceptions** text box, type a comma after the last entry and then type the printer name or the IP address.
- » **Note:** The printer name is entered in the network protocol menu that you are using. The default name is the model number of the printer. See your CrownNet documentation for information on changing the printer name.



- 6 Click **OK**.

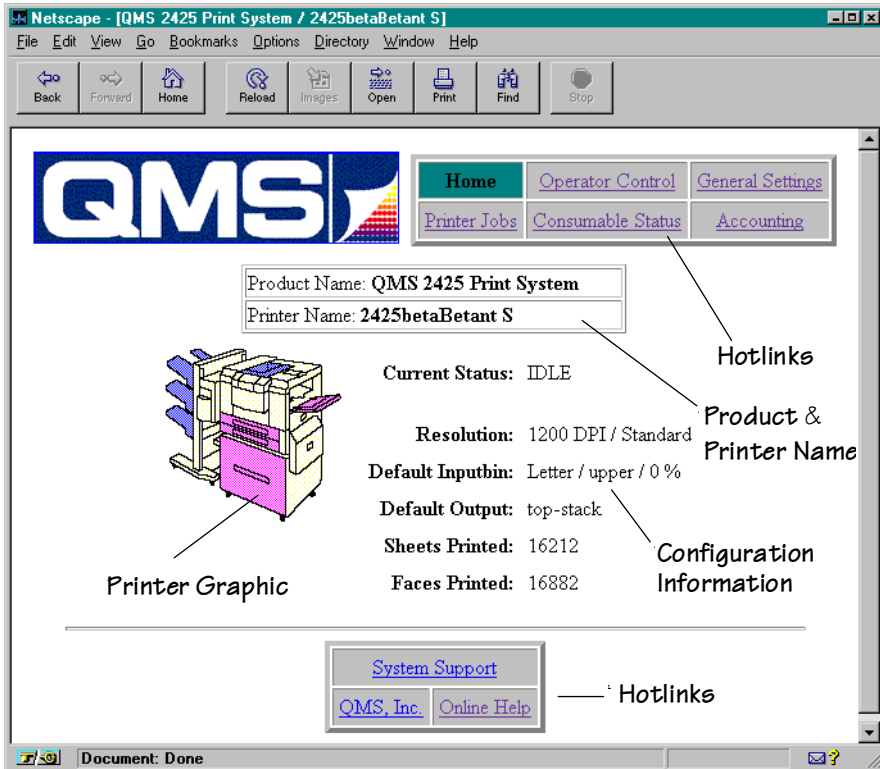
Setting up the Printer Web Page

- 7 Now you should be able to enter the printer name in the URL address box to access the printer home page.



Printer Home Page

The Home Page is the starting point for all access to the printer web pages. On this page you will find hotlinks to all of the supporting web pages for your printer.



The printer home page provides the following information.

Product Name	Identifies the particular printer that you are browsing. This printer is pictured in the graphic with all installed paper handling options.
	Configuration Menu: No equivalent

**Printer Home
Page**

Printer Name	Shows the name you have assigned to your printer. The default printer name is the same as the product name.
	Configuration Menu: Administration/ Communications/Networkx/CrownNet/NetWare/ Printer Name menu or the Administration/ Communications/Networkx/CrownNet/ LanManager/Printer Name menu
Current Status	Echoes the status message in the printer control panel message window.
	Configuration Menu: No equivalent
Resolution	Identifies the resolution and halftone.
	Configuration Menu: Administration/Engine/Def Resolution
Default Inputbin	Identifies the input cassette or tray, the media size, and the percent filled with media.
	Configuration Menu: Operator Control/Inputbin
Default Output	Identifies the output tray.
	Configuration Menu: Operator Control/Outputbin
Sheets Printed	Lists the number of sheets of media printed to date.
	Configuration Menu: No equivalent
Faces Printed	Lists the number of page faces printed to date.
	Configuration Menu: No equivalent
Hotlinks	Take you to other pages of status, configurations, or help information. Each of these hotlinks is fully explained in this chapter.
	Configuration Menu: No equivalent

Home

The Home hotlink simply returns you to the printer home page when it is selected.

Operator Control

The Operator Control hotlink on the home page jumps to the Operator Control page. This page contains a form which allows you to configure settings in your printer.

- » **Note:** *The Operator Control page is password protected. If a password is enabled for the Operator Control menu (Installation/Use Operator Pwd menu), you must enter the password before you can view this page.*

After you make your choices, choose the Submit button to make them take effect.

The screenshot shows a Netscape browser window titled "Netscape - [QMS 2425 Print System / 2425betaBetant S]". The address bar shows "http://www.qms.com". The page content includes a navigation menu with links for Home, Operator Control (highlighted), General Settings, Printer Jobs, Consumable Status, and Accounting. Below the menu, the product name is "QMS 2425 Print System" and the printer name is "2425betaBetant S". The main configuration form is divided into two columns. The left column contains settings for Copies (1), Duplex (Off), Tumble, Staple/Offset (center), Chain Output Bins (Off), Collation (Off), and Orientation (Portrait). The right column contains settings for Inputbin (upper), Outputbin (top-stack), Face-Up Order (Normal), Chain Inputbins (On), and Multipurpose Size (Letter). A Submit button is located at the bottom of the form. A line points from the text "Configuration Form" to the form area.

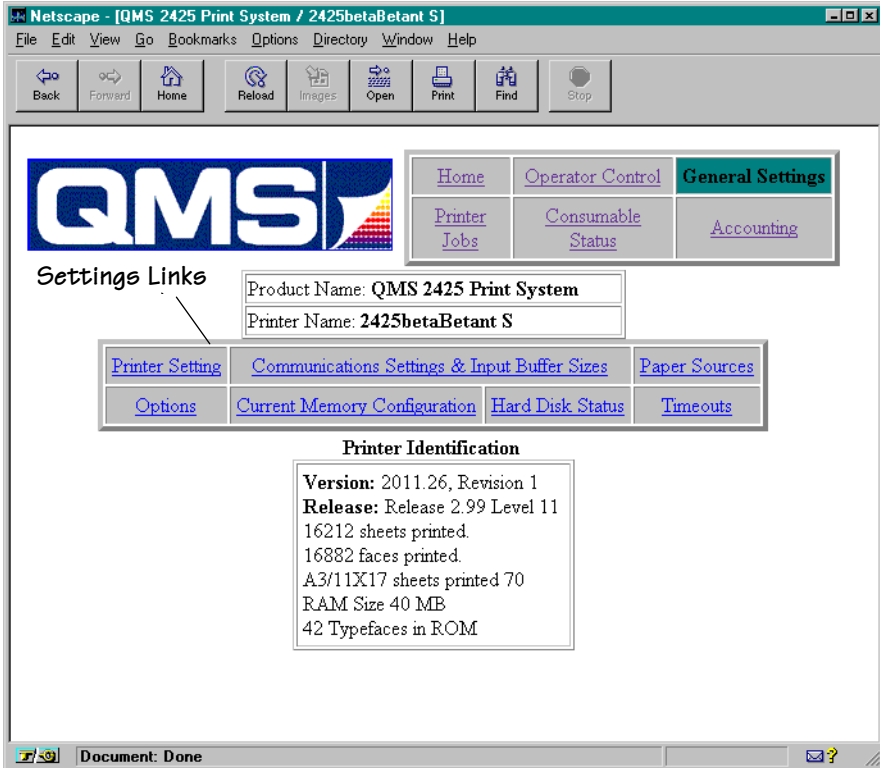
The Operator Control page contains the following options. For complete information on any options see chapter 4, "Printer Configuration," of the *Reference* manual.

Copies	Allows you to enter the number of copies to print.
	Configuration Menu: Operator Control/Copies
Duplex	Allows you to set duplexing to Off, On, or Tumble.
	Configuration Menu: Operator Control/Duplex
Collation	Allows you to turn collation Off or On.
	Configuration Menu: Operator Control/Collation
Orientation	Allows you to select Portrait or Landscape orientation.
	Configuration Menu: Operator Control/Orientation
Inputbin	Allows you to choose Multipurpose, Upper, Lower, Optional as the input source.
	Configuration Menu: Operator Control/Inputbin
Outputbin	Allows you to choose Upper or Face Up as the output location.
	Configuration Menu: Operator Control/Outputbin
Face-Up Order	This line allows you to select Reverse or Normal as the face-up order.
	Configuration Menu: Operator Control/Face-Up Order
Chain Inputbins	Allows you to set input bin chaining to Off, On, or On Any.
	Configuration Menu: Operator Control/Chain Inputbins
Multipurpose Size	Provides a menu to select the size media in the multipurpose tray.
	Configuration Menu: Operator Control/Multipurpose Size

Accounting Setup Mode	Allows you to select Disable or Enable print job accounting.
	Configuration Menu: Operator Control/Accounting/Mode
Disk Space (KB)	Allows you to set the available disk space for job accounting.
	Configuration Menu: Operator Control/Disk Space
Reset Accounting	Allows you to erase the accounting files and recreate them using the current file size.
	Configuration Menu: Operator Control/Accounting/Resetaccounting
File Segment	Allows you to specify whether accounting information is stored in the printer in single or multiple files.
	Configuration Menu: Operator Control/Accounting/File Segment

General Settings

The General Settings hotlink takes you to the General Settings page.



This page links to different groups of printer configuration settings;

- Printer settings
- Communications settings and input buffer sizes
- Paper sources
- Options available with the printer (such as duplexer or emulation)
- Current memory configuration
- Internal hard disk status
- Timeouts

This information can be viewed to show you the status of the printer, but it cannot be changed. To change these settings you must access the printer's configuration through the control panel of the printer, a remote or local console, or CrownAdmin 3.

Printer Setting

This table provides you with data relative to the settings of the printer.

Compatibility Level	Identifies the PostScript emulation level.
	Configuration Menu: No equivalent
Do Start-up Page	Identifies whether the printer start-up page is turned on or off.
	Configuration Menu: Administration/Startup Options/Do Start Page
Do Error Handler	Identifies whether the PostScript Error Handler is on or off. Error Handler is a diagnostic tool that identifies PostScript errors encountered during a print job.
	Configuration Menu: Administration/Startup Options/Do Error Handler
Do Sys/Start	Identifies whether the printer controller checks the hard disk for a PostScript file named SYS\START and then executes the file. This file does not print.
	Configuration Menu: Administration/Startup Options/Do Sys Start
Is Password 0?	Identifies whether the Administration menu password is set. 0=Off
	Configuration Menu: Installation/Use Admin Pwd
Duplex	Identifies whether the duplex option (if available) is enabled.
	Configuration Menu: Operator Control/Duplex

Tumble Duplex	Identifies whether duplex print jobs are to print so they can be bound at the top edge (flip-chart style).
	Configuration Menu: Operator Control/Duplex/Tumble Duplex
Default Chaining	Identifies whether tray chaining is enabled or disabled. Tray chaining allows the printer to draw media from another input source with either the same or any size and type of media (dependent on the choice selected) automatically when the first input source empties.
	Configuration Menu: Operator Control/Chain Inputbins
Default Paper Tray	Tells you which input source is the default.
	Configuration Menu: Operator Control/Inputbin
Default Output Tray	Tells you which output tray is the default
	Configuration Menu: Operator Control/Outputbin
Number of Paper Trays	Tells you the number of input sources available on your printer.
	Configuration Menu: No equivalent.
Page Stack Order	Tells you the page stack order of the printed document: Normal or Reverse.
	Configuration Menu: Operator Control/Face up Order
Left Margin	Identifies the amount (in .01" increments) the image is adjusted horizontally on the page.
	Configuration Menu: Administration/Engine/Image Alignment/Horiz Offset
Top Margin	Identifies the amount (in .01" increments) the image is adjusted vertically on the page.
	Configuration Menu: Administration/Engine/Image Alignment/Vertical Offset

Resolution	Identifies the printer resolution.
	Configuration Menu: Administration/Engine/Def. Resolution
Multi-Res	Identifies whether the Multi-Res board is installed.
	Configuration Menu: No equivalent

Communication Settings & Input Buffer Sizes

This hotlink displays a screen that shows the communications settings of the printer.

Serial IF	Identifies the settings for the optional serial interface.
	Configuration Menu: Administration/Communications/Serial
Parallel IF	Identifies the settings for the parallel interface.
	Configuration Menu: Administration/Communications/Parallel
IF1 IF String	Identifies the settings for the optional Network1 interface.
	Configuration Menu: Administration/Communications/Network1
IF 2 IF String	Identifies the settings for the optional Network2 interface.
	Configuration Menu: Administration/Communications/Network2

Paper Sources

This hotlink provides paper source information.

Multipurpose	Identifies the size paper currently installed in the multipurpose tray.
	Configuration Menu: No equivalent

Upper	Identifies the size paper currently installed in the upper tray.
	Configuration Menu: No equivalent
Lower	Identifies the size paper currently installed in the lower tray.
	Configuration Menu: No equivalent
Optional	Identifies the size paper currently installed in the optional high-capacity input paper deck.
	Configuration Menu: No equivalent

Options

Duplexer Installed	Tells you if the duplexer is installed.
	Configuration Menu: No equivalent.
Disk(s)	Tells you how many hard disks are attached to the printer and what their addresses are.
	Configuration Menu: No equivalent
ImageServer	Tells you whether ImageServer is installed and what its version number is.
	Configuration Menu: Operator Control/General Settings/Options/ImageServer

Current Memory Configuration

Memory configuration affects the number of jobs that can be accepted by the printer, the number of options available simultaneously, the number of downloadable fonts and emulations that can be stored, and overall printer performance.

Host Input	Shows the size (in KB) of the Host Input field, also known as K Mem for Spool. This memory client stores incoming data from all the interfaces until the emulation can process the print job.
	Configuration Menu: Administration/Memory/Manual Config/K Mem for Spool

Display List	Shows the size (in KB) of the Display List, also known as K Mem Display. This client stores compressed representations, or blocks, of the pages to be printed.
	Configuration Menu: Administration/Memory/Manual/Config/K/Mem Display
Font Cache	Shows the size (in KB) of the Font Cache, also known as K Mem for PS Fonts. This memory client stores bitmapped representations of previously scaled PostScript fonts.
	Configuration Menu: Administration/Memory/Manual Config/K Mem for PS Fonts
Heap	Shows the size (in KB) of the Heap, also known as K Mem for PSHeap, PostScript VM, and Virtual Memory. This client holds downloaded fonts, PostScript operators, and forms.
	Configuration Menu: Administration/Memory/Manual Config/K Menu for PSHeap
Framebuffer	Shows the size (in KB) of the Frame Buffer. This client holds rasterized or bitmapped images of page faces which are ready to be sent to the print engine.
	Configuration Menu: Administration/Memory/Manual Config/Framebuffer
Emulation	Shows the size (in KB) of the Emulation client, also known as K Mem Emulation. This client is used to store any optional emulations, such as LN03 Plus or QUIC II.
	Configuration Menu: Administration/Memory/Manual Config/K Mem Emulation

Emulation Temp	Shows the size (in KB) of the Emulation Temporary client. This client is used by non-PostScript emulations for storing downloaded (soft) fonts, forms, or macros.
	Configuration Menu: Administration/Memory/Manual Config/K Mem Emulation Temp
Disk Cache	Shows the size (in KB) of the Disk Cache. This memory client stores frequently used data in system memory instead of continually storing and retrieving it from a hard disk.
	Configuration Menu: Administration/Memory/Manual Config/K Mem /Disk Cache
System Use	Shows the size (in KB) of the System Use. Also known as System Memory, this non-configurable client is the amount of RAM used to run the printer's operating system. It's never increased or decreased. The system memory subtracted from the total amount of RAM identifies the amount of RAM available for all the other memory clients.
	Configuration Menu: No equivalent
Total Memory	Shows the size (in KB) of the total amount of RAM that your printer has.
	Configuration Menu: Administration/Memory/Manual Config/MB Printer Mem

Hard Disk Status

This hotlink provides the status of the hard disk.

Disk(s)	Provides the name, size, and free space on all attached hard disks.
	Configuration Menu: No equivalent

Timeouts

This hotlink provides the status on established timeouts.

Wait Timeout	Shows the maximum number of seconds the PostScript emulation waits for incoming data.
	Configuration Menu: Administration/ Communications/Timeouts/PS Wait Timeout
Job Timeout	This shows the maximum number of seconds the printer processes a print job before it ends the job.
	Configuration Menu: Administration/ Communications/Timeouts/Job Timeout
Emulation Timeout	Shows the maximum number of seconds emulations other than PostScript wait for incoming data.
	Configuration Menu: Administration/ Communications/Timeouts/Emulation Timeout
ESP Timeout	Shows the maximum number of seconds the printer uses to match an emulation before printing the job in the default emulation.
	Configuration Menu: Administration/ Communications/Timeouts/ESP Timeout

Printer Jobs

The Printer Jobs hotlink on the home page jumps to the Printer Jobs page. This page contains information about the current jobs the printer is processing and information on the previous five jobs printed.

Product Name: QMS 2425 Print System
Printer Name: 2425betaBetant S

Previous Job Status

Current Jobs ————— Current Job Status

No Current Jobs

Previous Jobs

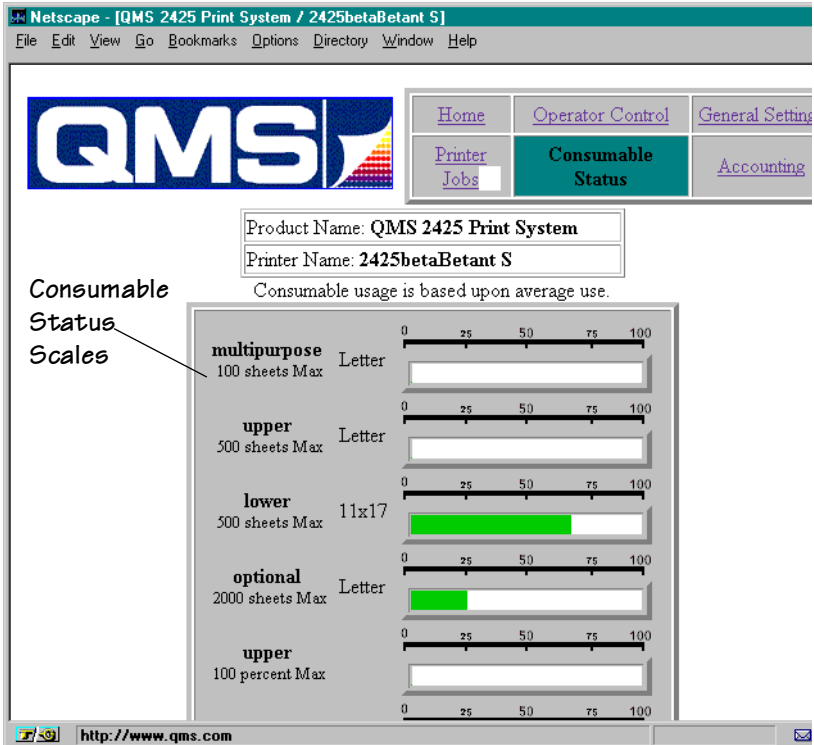
Job	Status	Prio	Owner	Title	Interface	Sheet	Page
115	Printed	1	GABLER \13\	LST:	Ethernet-2	3	3
116	Printed	1	GABLER \13\	LST:	Ethernet-2	3	3
117	Printed	1	GABLER \13\	LST:	Ethernet-2	3	3
118	Printed	1	GABLER \13\	LST:	Ethernet-2	3	3
119	Printed	1	DAVISD \15\	LST:	Ethernet-2	17	9

Job	Indicates the job number of the current print jobs and up to five previous print jobs.
	Configuration Menu: No equivalent.
Status	Indicates the status of each job. (Interpreting, Spooling, Spooled, Printing, Printed)
	Configuration Menu: No equivalent

Prio[rity]	Shows the priority of each job.
	Configuration Menu: No equivalent
Owner	Shows the name of the owner of each current job.
	Configuration Menu: No equivalent
Title	Shows the title of each job.
	Configuration Menu: No equivalent
Interface	Identifies the interface over which the job was sent to the printer.
	Configuration Menu: No equivalent
Sheet	Shows the number physical sheets of media printed for each job.
	Configuration Menu:
Page	Indicates the number of pages printed for each job.
	Configuration Menu: No equivalent

Consumable Status

The Consumable Status hotlink on the home page jumps to the Consumable Status page. This page contains information about the level of usage of all of the printers' consumables.



- » **Note:** The scale used is a percentage and does not indicate the number of pages printed.

Consumable Name(s)	Shows the name of the consumable; for example, Multipurpose (tray), Optional (lower cassette), Toner, and Face-up (output).
	Configuration Menu: No equivalent

Consumable Max Number	Shows the maximum capacity of the consumable (100%); for example, 500 sheets.
	Configuration Menu: No equivalent
Consumable Descriptions	Provides more information about the consumables; for example, A4 (paper), black (toner).
	Configuration Menu: No equivalent
Consumable Usage Bar	Shows the remaining amount of the consumable (in percentages).
	Configuration Menu: No equivalent

System Support Page

The System Support hotlink on the home page jumps to the System Support page. This page can be used to set up internal support for the printer as well as to link to the QMS web site.

The screenshot shows a Netscape browser window with the following content:

- Browser title: Netscape - [QMS 2425 Print System / 2425betaBetant S]
- Navigation menu: Home, Operator Control, General Settings, Printer Jobs, Consumable Status, Accounting
- Product information:
 - Product Name: QMS 2425 Print System
 - Printer Name: 2425betaBetant S
- Section: **System Support**
- Form titled "If you need assistance, contact":
 - Contact Number: 1(334)633-4500
 - Printer Help URL: http://www.qms.com/www/prthlp/index.html?prname=2425
 - QMS Corporate URL: http://www.qms.com
 - To Order Supplies and Accessories: 1-800-777-7782 {USA}
- Submit button

Once you have made the desired changes, choose Select.

If you need assistance, contact	A text box for entering the name of a local expert
	Configuration Menu: No equivalent
Printer Help URL	A text box for entering the Printer Help URL.
	Configuration Menu: No equivalent

Contact Number	A text box for entering a local or QMS contact number
	Configuration Menu: No equivalent
QMS Corporate URL	The QMS corporate URL (web address)
	Configuration Menu: No equivalent

QMS, Inc. Page

The QMS, Inc. hotlink on the home page jumps to the QMS web site configured on the System Support page (QMS Corporate URL). From the QMS web site you can access information about other QMS printers, contact information, a FAQ database, printer manuals, and online performance support.



Local Online Help Page

The Local Online Help hotlink on the home page jumps to any help information that has been configured on the System Support page (Printer Help URL). You can configure this to jump to your own help

web site set up on your local intranet. You can also configure this to jump to the QMS online performance support information for your QMS print system.

Web Page Help System

Your printer web page is supported with help and support tools located at the QMS web site. When you click on the Help button on the printer home page you will be linked to an HTML page located at the QMS web site. From here you can link to topic which applies to your specific problem. You can also access a list of current FAQs (Frequently Asked Questions) about your print system.



A

QMS Customer Support

In This Appendix . . .

- Sources of customer support on page A-2
- QMS world-wide offices on page A-5

Sources of Support

Several sources of help and information are available, depending on the type of help you need:

Your QMS Vendor

Your local vendor (the one from whom you bought the printer) may be best equipped to help you. Your vendor has specially trained service technicians available to answer questions, and the equipment to analyze your printer problems.

Your Application Vendor

Often, "printing" problems have more to do with the application being used than with the printer. In this case, the application manufacturer is the best source of help.

Q-FAX

Q-FAX, a QMS information retrieval service, provides application notes, technical support notes on common printing problems, and information about printer specifications, options, accessories, consumables, and prices.

In the United States and Canada, call (800) 633-7213 to reach Q-FAX. In all other countries, call (334) 633-3850. Have your fax number handy when you call (or place the call from your fax machine's handset).

You can choose to have either a directory (a list of currently available documents) or a specific document sent to you. The first time you call, request the directory (press 2 on your phone or fax keypad when prompted). Then call back to request specific documents. You can order up to three documents per call.

- » **Note:** *FAQ numbers may be subject to change, so you may want to obtain a directory of Q-FAX documents before requesting a specific document.*

The QMS Corporate Bulletin Board System

The QMS Corporate Bulletin Board System (BBS) contains technical support notes, application notes, drivers, patches, and utilities, and you may leave technical questions not requiring an immediate response on electronic mail for the Sysop (System Operator).

The bulletin board [(334) 633-3632] operates at 1200, 2400, 9600, and 14400 baud, 8 data bits, no parity, 1 stop bit, with XMODEM, YMODEM, and ZMODEM capabilities. Contact the QMS Customer Response Center (CRC) for more information about the bulletin board.

CompuServe

Through CompuServe, you ask general (non-technical) questions, share information with other users, and access printing information and programs. When you use CompuServe, type `go qmsprint` to go directly to the forum where QMS is located. The QMS library section contains application notes, printer drivers, utilities, technical information, and announcement files.

Internet

The QMS server provides access to technical reports, new product announcements, a trade show schedule, and other general information about QMS.

If you have access to the World Wide Web, you can view the QMS home page at <http://www.qms.com/>. The QMS ftp resource is <ftp.qms.com>.

QMS Customer Response Center (CRC)

You can contact the QMS Customer Response Center (CRC) in three different ways:

- **Telephone**—You can call the CRC at (334) 633-4500 (US) Monday–Friday, 7:00 am–6:00 pm, Central Time.
- » **Note:** *If you call for assistance, have the following information ready so our technicians can help you more quickly:*
 - ☑ Your phone number, fax number, and shipping address
 - ☑ A description of the problem
 - ☑ The printer model
 - ☑ The type of host computer you're using
 - ☑ The type and version of operating system you're using
 - ☑ The interface you're using, and, if serial, the protocol (for example, XON/XOFF)
 - ☑ The application and version you're using
 - ☑ The emulation you're using
 - ☑ Your printer firmware version (listed on the status/start-up pages)
- **Fax**—You can fax questions to the CRC at (334) 633-3716 (US). Provide the same information as listed above, and indicate whether you would like a faxed or a phoned reply.
- **Internet**—If you have access to the World Wide Web, you can access the CRC through the QMS home page at <http://www.qms.com/>.

QMS World-wide Offices

QMS United States and Latin America

General Contact

1 (334) 633-4300
Fax 1 (334) 633-4866
Email info@qms.com
Internet <http://www.qms.com>

Customer Response Center (CRC)

Technical Assistance
1 (334) 633-4500 7:00 am–6:00 pm Central Time
Fax 1 (334) 633-3716
Internet <http://www.qms.com>
Bulletin Board Service
1 (334) 633-3632

Latin America Fax

1 (334) 639-3347

National Service

Service Information, Installation, and Maintenance Pricing
1 (800) 762-8894
On-Site Service and Depot Repair Information
1 (800) 858-1597 7:00 am–7:00 pm Central Time
Spare Parts Ordering and Information
1 (334) 633-4300 x2530 8:00 am–5:00 pm Central Time

QMS Canada

General Contact

1 (514) 333-5940
Fax 1 (514) 333-5949
Supplies and Accessories 1 (800) 268-0343 x223

National Service

On-Site Service and Depot Repair Information
1 (800) 268-4969 8:30 am–7:00 pm Eastern Time
Spare Parts Ordering and Information
1 (905) 206-9234 x238 8:30 am–5:00 pm Eastern Time

Bulletin Board Service

1 (905) 206-0084

QMS in Japan

General Contact

(+81)- 3 3779-9600

Fax (+81)-3 3779-9650

Internet <http://www.qmsj.co.jp>

QMS in Latin America

General Contact

Cra 43 DD#8-42

Officina 201

Medellin, Colombia

(+57) (4) 312 13 70

Fax (+57) (4) 268 92 97

QMS Europe

Australia

Anitech

Sydney Business & Tech. Centre

52/2 Railway Parade

2141 Lidcombe NSW

Australia

(+61) 2-9901 3235

Fax (+61) 2-9901 3273

Benelux

**Belgium, Netherlands, and all
unlisted countries**

Planetenbaan 60 'Corner Plaza'

3606 AK Maarssen

The Netherlands

(+31) 346-551333

Fax (+31) 346-550170

Internet <http://www.qms.nl>

France

Vélizy Plus

1 Bis, Rue du Petit Clamart

78142 Vélizy Cedex

France

(+33) 1-410 79 393

Fax (+33) 1-408 30 110

GMBH

**Germany and
Austria**

Willstätterstrasse 10

40549 Düsseldorf

Germany

(+49) 211-596 1333

Fax (+49) 211-596 1397

Italy	Via della Repubblica 56 43100 Parma Italy (+39) 52–1231 998 Fax (+39) 52–1232 902
Nordic Sweden, Finland, Norway, and Denmark	Arenavägen 41, 6th floor 121 77 Johanneshov Sweden (+46) 8–600 01 30 Fax (+46) 8–600 01 33
South Africa	Saskay House Unit 24 Sunninghill Business Park Peltier Road, Sunninghill, Johannesburg Republic of South Africa (+27) 11–807 6957 Fax (+27) 11–807 6960
Spain	Josefa Valcárcel 8 28027 Madrid Spain (+34) 1– 742 5013 Fax (+34) 1–742 3152
UK United Kingdom and Ireland	Old Bridge House, The Hythe Staines, Middlesex TW18 3JF United Kingdom (+44) 1784–442255 Fax (+44) 1784–461641



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